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2008
REPORT TO CONGRESS
of the
**U.S.-CHINA ECONOMIC AND
SECURITY REVIEW COMMISSION**

ONE HUNDRED TENTH CONGRESS
SECOND SESSION

NOVEMBER 2008

Printed for the use of the
U.S.-China Economic and Security Review Commission
Available via the World Wide Web: <http://www.uscc.gov>



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WASHINGTON : 2008



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U.S.-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION

OCTOBER 27, 2008

The Honorable Robert C. Byrd,
President Pro Tempore of the U.S. Senate, Washington, DC 20510
The Honorable Nancy Pelosi,
Speaker of the U.S. House of Representatives, Washington, DC 20510

DEAR SENATOR BYRD AND SPEAKER PELOSI:

On behalf of the U.S.-China Economic and Security Review Commission, we are pleased to transmit the Commission's 2008 Annual Report to the Congress—the sixth major Report presented to Congress by the Commission—pursuant to Public Law 106-398 (October 30, 2000), as amended by Public Law 109-108 (November 22, 2005). This report responds to the mandate for the Commission “to monitor, investigate, and report to Congress on the national security implications of the bilateral trade and economic relationship between the United States and the People's Republic of China.” In this Report, the Commission reached a broad and bipartisan consensus; it approved the Report unanimously, with all 12 members voting to approve and submit it.

In accordance with our mandate, this Report includes detailed treatment of our investigations of the areas identified by Congress for our examination and recommendation. These areas are:

- **PROLIFERATION PRACTICES**—The role of the People's Republic of China in the proliferation of weapons of mass destruction and other weapons (including dual-use technologies), including actions the United States might take to encourage the People's Republic of China to cease such practices;
- **ECONOMIC TRANSFERS**—The qualitative and quantitative nature of the transfer of United States production activities to the People's Republic of China, including the relocation of high technology, manufacturing, and research and development facilities, the impact of such transfers on United States national security, the adequacy of United States export control laws, and the effect of such transfers on United States economic security and employment;
- **ENERGY**—The effect of the large and growing economy of the People's Republic of China on world energy supplies and the role the United States can play (including joint research and development efforts and technological assistance) in influencing the energy policy of the People's Republic of China;
- **UNITED STATES CAPITAL MARKETS**—The extent of access to and use of United States capital markets by the People's Republic of China, including whether or not existing disclosure and transparency rules are adequate to identify People's Republic of China companies engaged in harmful activities;
- **REGIONAL ECONOMIC AND SECURITY IMPACTS**—The triangular economic and security relationship among the United States, [Taiwan] and the People's Republic of China (including the military modernization and force deployments of the People's Republic of China aimed at [Taiwan]), the national budget of the

People's Republic of China, and the fiscal strength of the People's Republic of China in relation to internal instability in the People's Republic of China and the likelihood of the externalization of problems arising from such internal instability;

- **UNITED STATES-CHINA BILATERAL PROGRAMS**—Science and technology programs, the degree of noncompliance by the People's Republic of China with agreements between the United States and the People's Republic of China on prison labor imports and intellectual property rights, and United States enforcement policies with respect to such agreements;
- **WORLD TRADE ORGANIZATION COMPLIANCE**—The compliance of the People's Republic of China with its accession agreement to the World Trade Organization; and
- **FREEDOM OF EXPRESSION**—The implications of restrictions on speech and access to information in the People's Republic of China for its relations with the United States in the areas of economic and security policy.

The Commission conducted its work through a comprehensive set of nine public hearings, taking testimony from over 92 witnesses from the Congress, the executive branch, industry, academia, policy groups, and other experts. It conducted eight of these hearings in Washington, DC, and conducted one field hearing in New Orleans, Louisiana, on seafood imported into the United States. For each of its hearings, the Commission produced a transcript (posted on its Web site—www.uscc.gov). The Commission also received a number of briefings by officials of executive branch agencies, intelligence community agencies, and the armed services, including two days of classified briefings on China's cyber operations and espionage. (The Commission is preparing a classified report to Congress on those topics.)

Commissioners also conducted official visits to China, Hong Kong, and Taiwan, and to South Korea and Japan to hear and discuss the perspectives of those nations on China and its global and regional activities. In these visits, the Commission delegations met with U.S. diplomats, host government officials, representatives of the U.S. and foreign business communities, and local experts.

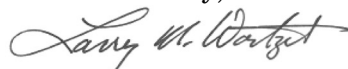
The Commission also relied substantially on the work of its excellent professional staff, and supported outside research in accordance with our mandate.

The Report includes 45 recommendations for Congressional action. Our 10 most important recommendations appear on page 17 at the conclusion of the Executive Summary.

We offer this Report to the Congress in the hope that it will be useful as an updated baseline for assessing progress and challenges in U.S.-China relations.

Thank you for the opportunity to serve. We look forward to continuing to work with you in the next Congress to address issues of concern in the U.S.-China relationship.

Yours truly,



Larry M. Wortzel
Chairman



Carolyn Bartholomew
Vice Chairman

Commissioners Approving the Report



Larry M. Wortzel, Ph.D., Chairman



Carolyn Bartholomew, Vice Chairman



Daniel Blumenthal, Commissioner



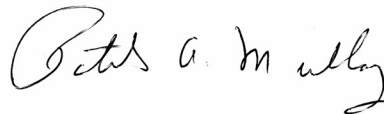
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EXECUTIVE SUMMARY

The 2008 Annual Report to Congress of the U.S.-China Economic and Security Review Commission sets forth the Commission's analysis of the U.S.-China relationship in the topical areas designated by the Commission's Congressional mandate: the areas for the Commission to consider and about which it is to make recommendations to the Congress. These include China's proliferation practices, the qualitative and quantitative nature of economic transfers of U.S. production activities to China, the effect of China's development on world energy supplies, the access to and use of U.S. capital markets by China, China's regional economic and security impacts, U.S.-China bilateral programs and agreements, China's compliance with its accession agreement to the World Trade Organization (WTO), and the implications of China's restrictions on freedom of expression. Our analysis, along with recommendations to the Congress for addressing identified concerns, is chronicled in the Report and summarized herein.

COMMISSION ASSESSMENT OF U.S.-CHINA ECONOMIC AND SECURITY RELATIONS

Congress gave the Commission the mission of evaluating "the national security implications of the bilateral trade and economic relationship between the United States and the People's Republic of China" and reporting its evaluation to Congress annually together with its findings concerning the topical areas listed above. The Commission adopts a broad interpretation of "national security" in making its review and its evaluation of how the U.S.-China relationship affects the economic health and industrial base of the United States, the military and proliferation risks China poses to the United States, and the threat to U.S. economic and security interests and influence in Asia.

As in its previous five Annual Reports, the Commission sees progress on some issues but the continuation of a number of troubling trends. The Commission also notes that it continues to stand behind both its conclusions as enunciated in the previous Reports to Congress—unless it specifies in this Report that a circumstance and therefore the Commission's conclusion regarding a particular issue has changed—and its recommendations to Congress contained in those Reports, and it does not routinely repeat either its conclusions or recommendations from prior Reports.

COMMISSION CONCLUSIONS

The Report presents its conclusions, analyses, and recommendations to Congress in 17 segments organized in six chapters. However, the Commission has attempted to take an integrated approach to its assessments, believing that economic, security, and other issues are interrelated. The intersections of U.S. geopolitical,

economic, security, diplomatic, and cultural interests form a complex web of concerns that are connected to the overall relationship between the United States of America and the People's Republic of China.

The Commission's conclusions are included in this Executive Summary. At the end of this summary, the Commission's 10 key recommendations are listed. The Commission makes a total of 45 recommendations to the Congress in this Report. Those pertaining to each of the six Report chapters appear at the conclusion of the chapter, and a comprehensive list is provided beginning on page 337.

The U.S.-China Trade and Economic Relationship

China held to its hybrid model of a state-directed economic system throughout 2008 as it consolidated its position as one of the world's fastest-growing countries. Alone among the world's major economies, China refuses to allow the renminbi (RMB), its currency, to respond to free market movements. China's leaders instead keep the currency trading at an artificially low level in order to suppress export prices—a deliberate violation of the rules of the International Monetary Fund, of which it is a member. As a result of this and other factors, China's current account surplus with the United States and the rest of the world soared and added to China's record foreign exchange reserves of nearly \$2 trillion when this Report was completed, up from \$1.43 trillion at the publication of the Commission's Report a year ago. China began employing this foreign exchange in new ways. Rather than using it to improve the standard of living for the Chinese people through education, health care, or pension systems, China began investing the money through new overseas investment vehicles, including an official sovereign wealth fund, the China Investment Corporation. Despite statements by Chinese leaders that they seek only financial gain from diversifying their investments into equity stakes in western companies, there are increasing suspicions that China intends to use its cash to gain political advantage globally and to lock up supplies of scarce resources around the world.

Other Chinese government economic policies harmed the United States, China's trading partners, and its own citizens. China made scant progress in reining in the rampant counterfeiting and piracy that deprive legitimate foreign businesses operating in China of their intellectual property, while they provide an effective subsidy to Chinese companies that make use of stolen software and other advanced technology. Chinese regulators failed to prevent the domestic sale and export of consumer goods tainted with industrial chemicals and fraudulent ingredients. In one case examined by the Commission, China's lax controls on the production and handling of its seafood exports led to a partial U.S. ban for health reasons on imported Chinese seafood. Yet, thanks to artificially low prices partly resulting from an array of subsidies to its seafood industry, China has become the largest exporter of seafood to the United States.

Conclusions

The U.S.-China Trade and Economic Relationship's Current Status and Significant Changes During 2008

- China's trade surplus with the United States remains large, despite the global economic slowdown. The U.S. trade deficit in goods with China through August 2008 was \$167.7 billion, which represents an increase of 2.4 percent over the same period in 2007. Since China joined the WTO in 2001, the United States has accumulated a \$1.16 trillion goods deficit with China and, as a result of the persistent trade imbalance, by August 2008 China had accumulated nearly \$2 trillion in foreign currency reserves. China's trade relationship with the United States continues to be severely unbalanced.
- The U.S. current account deficit causes considerable anxiety among both economists and foreign investors who worry that future taxpayers will find it increasingly difficult to meet both principal and interest payments on such a large debt. The total debt burden already is having a significant impact on economic growth, which will only increase in severity.
- China's currency has strengthened against the U.S. dollar by more than 18.5 percent since the government announced in July 2005 it was transitioning from a hard peg to the dollar to a "managed float." Starting in July 2008, however, the rate of the RMB's appreciation has slowed, and there are some indications this may be due to the Chinese government's fear that a strong RMB will damage China's exports. China's RMB remains significantly undervalued.
- China continues to violate its WTO commitments to avoid trade-distorting measures. Among the trade-related situations in China that are counter to those commitments are restricted market access for foreign financial news services, books, films and other media; weak intellectual property protection; sustained use of domestic and export subsidies; lack of transparency in regulatory processes; continued emphasis on implementing policies that protect and promote domestic industries to the disadvantage of foreign competition; import barriers and export preferences; and limitations on foreign investment or ownership in certain sectors of the economy.
- Over the past year, China has adopted a battery of new laws and policies that may restrict foreign access to China's markets and protect and assist domestic producers. These measures include new antimonopoly and patent laws and increased tax rebates to textile manufacturers. The full impact of these laws is not yet known, particularly whether they will help or hinder fair trade and investment.
- In 2008, China emerged as a stronger power within the WTO as it took a more assertive role in the Doha Round of multilateral trade talks, working with India and other less-developed nations to insist on protection for subsistence farmers.

China's Capital Investment Vehicles and Implications for the U.S. Economy and National Security

- The significant expansion of the Chinese government's involvement in the international economy in general and in the U.S. economy in particular has concerned many economists and government officials due to uncertainty about the Chinese government's and the Chinese Communist Party's motivations, strategies, and possible impacts on market stability and national security. At the same time, cash-strapped U.S. firms have welcomed the investments, viewing them as stable and secure sources of financing in the wake of the credit crunch.
- China's government uses a number of state-controlled investment vehicles among which it chooses depending on its particular investment purposes and strategies; most widely known among such vehicles are China Investment Corporation (CIC), the State Administration for Foreign Exchange (SAFE), and China International Trust and Investment Corporation (CITIC).
- Some aspects of China Investment Corporation's mandate follow China's industrial policy planning and promotion of domestic industries by, for example, investing in natural resources and emerging markets that are relevant for the advancement of China's value-added industries. CIC and SAFE form just one part of a complex web of state-owned banks, state-owned companies and industries, and pension funds, all of which receive financing and instructions from the central government, promote a state-led development agenda, and have varying levels of transparency. Many of their investment activities contravene official assurances that they are not being managed to wield political influence.
- Regulations governing investments by sovereign wealth funds, especially disclosure requirements pertaining to their transactions and ownership stakes, are still in development, both in the multilateral arena and in the United States. There is concern that the Chinese government can hide its ownership of U.S. companies by using stakes in private equity vehicles like hedge or investment funds.
- China's foreign exchange reserves continue to grow, while its management of the exchange rate has given it monopoly control on outward flows of investment. This strongly suggests that China will have a very substantial and long-term presence in the U.S. economy through equity stakes; loans; mergers and acquisitions; ownership of land, factories, and companies; and other forms of investment.

Research and Development, Technological Advances in Some Key Industries, and Changing Trade Flows with China

- China has been pursuing a government policy designed to make China a technology superpower and to enhance its exports. Some of its tactics violate free market principles—specifically its use of subsidies and an artificially low RMB value to attract foreign investment.

- Foreign technology companies, such as U.S. and European computer, aerospace, and automotive firms, have invested heavily in research and development and production facilities in China, sharing or losing technology and other know-how. Chinese manufacturers have benefitted from this investment.
- The U.S. government has not established any effective policies or mechanisms at the federal level to retain research and development facilities within its borders.
- China's trade surplus in advanced technology products is growing rapidly, while the United States is running an ever-larger deficit in technology trade. China also is pursuing a strategy of creating an integrated technology sector to reduce its dependence on manufacturing inputs.
- China seeks to become a global power in aerospace and join the United States and Europe in producing large passenger aircraft. China also seeks to join the United States, Germany, and Japan as major global automobile producers. So far as China competes fairly with other nations, this need not be a concern. But China's penchant for using currency manipulation, industrial subsidies, and intellectual property theft to gain an advantage violates international norms.

A Case Study of the Local Impact of Trade with China: Seafood Imports from China into Louisiana and the U.S. Gulf Coast, and Related Safety Issues

- Many fish imports from Chinese aquaculture pose a health risk because of the unsanitary conditions of some Chinese fish farms, including water polluted by untreated sewage; fish contaminated by bacteria, viruses, and parasites; and fish treated with antibiotics and other veterinary medicines that are banned in the United States as dangerous to human health.
- Since 2001, China has become the world's dominant seafood exporter, due in large part to the government's promotion of industrial fish farming and the application of extensive government subsidies to the industry, including cheap fuel, outright construction grants, and free use of reservoirs and rivers.
- China is building an industrialized aquaculture sector through the use of extensive subsidies. In addition to producing food for domestic consumption, China has succeeded in creating a large aquaculture export industry as part of the government's overall industrial policy. As a result, China now is the largest volume exporter of fish to the United States, shipping more than one billion pounds annually, or one in five pounds of seafood eaten by Americans.
- Import-sensitive seafood product lines in the Gulf of Mexico region of the United States, such as shrimp, crawfish, and catfish, have suffered significant declines as a result of Chinese imports. Predicted long-term trends for the Gulf seafood industry are for flat or lower sales.

- Antidumping penalties imposed by the United States on Chinese shrimp and crawfish exports sold at below market value accomplished little of their intended effect. This appears to be due in part to transshipment by China through ports of other Asian nations in order to avoid the penalty tariffs and in part to the failure to collect the penalty tariffs.
- The U.S. Food and Drug Administration (FDA), with responsibility for monitoring imports of fish, does not yet have the authority or the personnel to inspect fish farms or processors in China nor to require and enforce regulation of Chinese aquaculture by the Chinese government equivalent to U.S. Department of Agriculture requirements for foreign meat and poultry producers. The European Union, Japan, Canada, and even Hong Kong have more rigorous inspection regimes.
- The FDA lacks the authority to seize and destroy seafood shipments it has rejected for import into the United States. In some cases, the FDA must relinquish the fish to the shipper, which has led to a practice known as “port shopping” in which importers try to bring seafood rejected at one U.S. port through another one. The situation is exacerbated by the fact that it takes the FDA, on average, a year to notify U.S. ports of the potential for a banned shipment to attempt to enter at another port. The FDA also lacks the authority to order a mandatory recall of seafood or even to block imports of Chinese seafood at the request of Chinese officials.
- In an effort to forestall epidemic diseases due to overcrowding and to compensate for the use of water polluted by agricultural fertilizers, industrial wastes, and partially treated sewage, Chinese fish farmers, acting on unscientific advice, often add chemicals and pharmaceuticals to the water of their farms.
- The challenge of assuring that Chinese-produced seafood meets minimal quality standards is exacerbated by the fact that there is little traceability or accountability of the products of China’s 4.5 million fish farms and one million processors, most of them small operations whose products are aggregated by wholesalers and processors.
- The current form of a memorandum of agreement addressing seafood safety and related procedures that is being negotiated by the U.S. and People’s Republic of China governments would allow the U.S. Food and Drug Administration to monitor the performance of various Chinese government agencies in ensuring the safety of China’s seafood exports but would not provide the FDA with the authority to conduct its own inspections in China.
- The current Country of Origin Label regulations pertaining to imported fish are ineffective because of the many exemptions the law provides.

China’s Activities Directly Affecting U.S. Security Interests

China’s record of proliferating weapons of mass destruction or effect has improved in recent years, and the nation has played a significant role in some important nonproliferation activities such as

the Six-Party Talks intended to denuclearize North Korea. However, the United States continues to have concerns about the commitment of China's leadership to nonproliferation and to enforcing the strengthened nonproliferation laws and procedures the nation has established and about China's refusal to participate in some international nonproliferation agreements and regimes. The United States also is concerned that the nuclear power technology China is selling to other nations may result in nuclear proliferation.

China increasingly is devising unique interpretations of agreements or treaties to which it is a party that have the effect of expanding the territory over which it claims sovereignty and rationalizing such expansions, particularly outward from its coast and upward into outer space. This development, coupled with its military modernization, its development of impressive but disturbing capabilities for military use of space and cyber warfare, and its demonstrated employment of these capabilities, suggest China is intent on expanding its sphere of control even at the expense of its Asian neighbors and the United States and in contravention of international consensus and formal treaties and agreements. These tendencies quite possibly will be exacerbated by China's growing need for natural resources to support its population and economy that it cannot obtain domestically. The United States should watch these trends closely and act to protect its interests where they are threatened.

Conclusions

China's Proliferation Policies and Practices

- China has made progress in developing nonproliferation policies and mechanisms to implement those policies. Although it is apparent that China is making some meaningful efforts to establish a culture and norms supporting some aspects of nonproliferation within its bureaucracy and industry, gaps remain in the policies, the strength of government support for them, and their enforcement.
- Although China has acceded to numerous international agreements on nonproliferation and has cooperated with the United States on some nonproliferation issues (e.g., the Six-Party Talks), China has been reluctant to participate fully in U.S.-led nonproliferation efforts such as the Proliferation Security Initiative and in multilateral efforts to persuade Iran to cease its uranium enrichment and other nuclear development activities.
- China's support for multilateral negotiations with North Korea can help to reduce tensions on the Korean Peninsula, open North Korea to dialogue, and improve bilateral relations among the countries participating in the process—which may be crucial ingredients for peace and cooperation in northeast Asia and beyond.
- Experts have expressed concerns that China's sales or transfers of nuclear energy technology to other nations may create conditions for proliferation of nuclear weapons expertise, technology, and related materials. These activities also could feed the insecurity.

rities of other nations and cause them to pursue their own nuclear weapons development efforts. This could lead to an increase in the number of nations possessing nuclear weapons capability.

China's Views of Sovereignty and Methods of Controlling Access to its Territory

- China's leaders adamantly resist any activity they perceive to interfere with China's claims to territorial sovereignty. At times this priority conflicts with international norms and practices.
- Some experts within China are attempting to assert a view that China is entitled to sovereignty over outer space above its territory, contrary to international practice. If this becomes Chinese policy, it could set the stage for conflict with the United States and other nations that expect the right of passage for their spacecraft.
- China has asserted sovereignty over the seas and airspace in an Exclusive Economic Zone that extends 200 miles from its coastal baseline. This already has produced disputes with the United States and other nations and brings the prospect of conflict in the future.
- Any assertions by Chinese officials of sovereignty in the maritime, air, and outer space domains are not just a bilateral issue between the United States and China. The global economy is dependent upon the fundamental principles of freedom of navigation of the seas and air space, and treatment of outer space as a global "commons" without borders. All nations that benefit from the use of these domains would be adversely affected by the encroachment of Chinese sovereignty claims.
- China's efforts to alter the balance of sovereignty rights are part of its overall access control strategy and could have an impact on the perceived legitimacy of U.S. military operations in the region, especially in times of crisis.
- China is building a legal case for its own unique interpretation of international treaties and agreements. China is using "lawfare" and other tools of national power to persuade other nations to accept China's definition of sovereignty in the maritime, air, and space domains.

The Nature and Extent of China's Space and Cyber Activities and their Implications for U.S. Security

- China continues to make significant progress in developing space capabilities, many of which easily translate to enhanced military capacity. In China, the military runs the space program, and there is no separate, distinguishable civilian program. Although some Chinese space programs have no explicit military intent, many space systems—such as communications, navigation, meteorological, and imagery systems—are dual use in nature.
- The People's Liberation Army currently has sufficient capability to meet many of its space goals. Planned expansions in electronic and signals intelligence, facilitated in part by new, space-based

assets, will provide greatly increased intelligence and targeting capability. These advances will result in an increased threat to U.S. military assets and personnel.

- China's space architecture contributes to its military's command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) capability. This increased capability allows China to project its limited military power in the western and southern Pacific Ocean and to place U.S. forces at risk sooner in any conflict.
- Cyber space is a critical vulnerability of the U.S. government and economy, since both depend heavily on the use of computers and their connection to the Internet. The dependence on the Internet makes computers and information stored on those computers vulnerable.
- China is likely to take advantage of the U.S. dependence on cyber space for four significant reasons. First, the costs of cyber operations are low in comparison with traditional espionage or military activities. Second, determining the origin of cyber operations and attributing them to the Chinese government or any other operator is difficult. Therefore, the United States would be hindered in responding conventionally to such an attack. Third, cyber attacks can confuse the enemy. Fourth, there is an underdeveloped legal framework to guide responses.
- China is aggressively pursuing cyber warfare capabilities that may provide it with an asymmetric advantage against the United States. In a conflict situation, this advantage would reduce current U.S. conventional military dominance.

China's Energy and Environment Policies and Activities

China's economy, energy use, and environment are inextricably linked. China's rapid economic growth has resulted in an increase in energy consumption, and a reliable energy supply is needed to continue fueling this growth. A significant portion of China's energy consumption is supplied by coal, and with changing consumption patterns, oil and gas also are becoming important fuel sources. This reliance upon fossil fuels, coupled with weak environmental governance, has resulted in pollution that affects public health, air and water quality, and the economy. This pollution is not limited to China, as it has been found to reach the United States. The fossil fuel reliance also has resulted in China becoming the world's largest emitter of carbon dioxide. China is developing a regulatory framework to address these problems, but stricter enforcement, oversight, and industrial compliance are needed. The United States is cooperating with China on these issues through various agreements and programs to assist China in devising and implementing the right incentives needed to establish effective energy and environmental policies.

Conclusions

China's Current Energy Picture

- China's total energy consumption is growing and is projected to surpass that of the United States in 2010. By 2030, China will consume 25 percent more energy than the United States. The effects of such consumption growth already are influencing world energy markets, the global availability of energy resources, and the price of these resources.
- Coal remains China's primary fuel source, and China's coal consumption is expected to increase. This will increase China's already troubling emission of pollutants, notably including carbon dioxide, and will exacerbate the challenge of reducing China's pollution.
- China's energy consumption results in environmental consequences that have real economic and human costs. The cost of pollution has been reported to equal 781 billion RMB (\$112 billion) per year, and pollution-related illnesses cause an estimated 750,000 deaths per year in China. Continued declines in environmental quality potentially could hinder the nation's economic growth and possibly lead to a challenge of the Communist Party's authority.
- The pollution produced by China's energy consumption increasingly is reaching and harming other portions of the world, including the United States. If current projections for China's emissions are realized and production of these emissions is not substantially mitigated, major international tensions may appear.
- China's carbon dioxide emissions are the largest of any nation and are projected to grow significantly. Global efforts to address climate change must consider the impact of China's current and future emissions.

Tackling the Consequences of China's Energy Consumption

- China's energy and environmental policy institutions are weak, and without significant support and strengthening by the PRC leadership, these institutions will be incapable of reversing the trends of China's energy consumption and environmental pollution.
- The most obvious explanation for the weakness of China's energy and environmental institutions is the government's lack of commitment to devote the necessary resources to achieving substantial progress in these arenas. The government demonstrated in its preparations for the Beijing Olympic Games that it has the ability to use governmental mechanisms to develop and enforce environmental policies to achieve its objectives—specifically improving the quality of Beijing's air.
- Given the transboundary environmental impact of China's unbridled energy consumption, the United States has a keen interest in supporting China's energy and environmental bureaucracy to improve its transparency, expertise, and capacity to promulgate

and enforce regulations designed to reduce emissions and increase energy efficiency.

- Chinese leaders are aware of the need to moderate the growth of energy consumption and to improve energy efficiency but to date they have not made a commitment to reduce carbon dioxide emissions at the cost of economic development.
- China participates in multilateral negotiations to address climate change but has major difficulty supporting an agreement that requires it to reduce its net emissions. Chinese negotiating efforts attempt to shift the burden to reduce emissions to developed, industrialized nations and to escape being placed in this group.
- As the negotiations for a post-Kyoto climate change mitigation framework move forward, the United States and China have a joint interest in cooperating to influence the outcome of the negotiations and to resolve their bilateral differences in order to achieve a mutually acceptable solution and a shared understanding of each country's commitments under the agreement.
- Without a reduction in tariffs, and effective protection for intellectual property rights and technology, it will be very difficult for American companies to participate in transferring energy and environmental technologies to China.

China's Foreign Activities and Relationships

China, as all other nations, uses economic, military, and political tools to advance its interests on the world stage. In some cases, China's foreign relations activities support the advancement of global peace and security, and in other cases—such as selling arms to Sudan—they harm efforts to resolve international crises.

This chapter examines the regional economic and security effects of China's relationships with Taiwan, South Korea, and Japan and the ways in which its regional and global activities impact the United States and its security interests. In April 2008, a Commission delegation traveled to the People's Republic of China and Hong Kong, and in August 2008 a delegation traveled to South Korea, Japan, and Taiwan. The meetings during these trips with government officials, military leaders, academicians, business leaders, U.S. diplomats, and others form the basis for analyzing how China's role in the region is affecting and will affect U.S. economic and security partnerships and how common interests can be pursued.

Conclusions

China's Expanding Global Influence and its Foreign Policy Goals and Tools

- China's growing diplomatic activism is an attempt to demonstrate that China has attained great power status. China is relying upon its "charm offensive" to win friends around the world, and it is using its influence to push back potential adversaries.
- China has been able to use its economic weight to create financial dependencies that can constrain or censure the actions of

other countries that rely on China's trade. This has allowed China to expand its influence among developed nations, namely the United States and the European Union, and to be more assertive of its own economic interests, as was most recently observed in its behavior at the World Trade Organization's July 2008 Doha negotiating round.

- China's use of aid and investment may have detrimental consequences for the U.S.' and international financial institutions' desire to promote transparency, accountable governance, environmental protection, and human development in the developing world.
- China has continued to transfer weapons and military technology to nations that may use or retransfer them in ways that violate international norms and values and harm U.S. interests.
- China's engagement in United Nations (UN) peacekeeping operations is a positive contribution to global security. However, Beijing's continuing arms sales and military support to rogue regimes, namely Sudan, Burma, and Iran, threaten the stability of fragile regions and hinder U.S. and international efforts to address international crises, such as the genocide in Darfur.
- The U.S.' ability to promote its foreign policies around the world and to protect its interests may be challenged by rising Chinese influence.
- Holding China accountable for fulfilling its international commitments and encouraging it to adopt a constructive global role will strengthen the international system.

Taiwan

- The United States has an important interest in ensuring the survival of a democratic government in Taiwan. The United States has explicit commitments set forth in the Taiwan Relations Act to assist Taiwan with its own defense.
- While relations between Taiwan and the People's Republic of China (PRC) have improved over the past year, tensions remain, and unresolved issues regarding Taiwan's sovereignty and status continue to divide the two sides. The status of Taiwan creates a potentially dangerous situation that risks armed conflict if the relationship and its inherent tensions are not managed carefully by both sides.
- An armed conflict between the PRC and Taiwan would impair security, stability, and prosperity in East Asia and could involve the United States. It is in the interest of the United States to foster a peaceful resolution of Taiwan's international status and maintenance of a peaceful status quo until that resolution can be achieved.
- The successful peaceful change of government between rival parties in Taiwan during 2008 demonstrates the continuing maturation and stabilization of Taiwan's youthful democratic process.

- Taiwan's political discourse remains vibrant and strong, with pronounced policy differences between Taiwan's major political parties regarding economic ties with mainland China and the best means to provide for Taiwan's prosperity and security. Taiwan's new government has introduced significant shifts in economic and diplomatic policy that emphasize seeking improved relations and liberalized economic ties with mainland China while also seeking improved relations with the United States.
- Officials of Taiwan's government have indicated that they will follow a pragmatic policy of seeking membership in international organizations that do not require internationally recognized status as a state as a prerequisite for membership, and official observer status or other avenues for meaningful participation in international organizations that require statehood for membership.
- Officials in the Ma Administration have described a new defense policy that deemphasizes deterrent or power projection options directed against the mainland and instead relies on a more conventional defense strategy based on defensive weapon systems.
- Arms purchases from the United States are a keystone of Taiwan's plans for its future defensive forces, and those plans cannot be realized if the United States does not supply the weapon systems sought by Taiwan. No other country has been willing to sell arms to Taiwan in the recent past.

Japan's Relationship with China

- The United States and Japan share similar concerns about China's commitments under the World Trade Organization, its increasing pollution, its failure to protect intellectual property, the safety of Chinese food and other imports, and the security of the supply chain of each country's defense industrial base.
- Japan and China have several territorial disputes, one of which is about the proper demarcation for their Exclusive Economic Zones in the East China Sea. Although these disputes have not been resolved, the two countries have found a temporary compromise in one case by agreeing to the joint development of the East China Sea's oil reserves.
- Japan plans to pursue a five-year buildup of the Japanese Self-Defense Forces that is designed to enable it to respond effectively to conflict scenarios near Japan, some of which could involve China.

The Republic of Korea's Relationship with China

- The United States continues to be a close ally of the Republic of Korea, even as South Korea seeks to strengthen and is strengthening economic and diplomatic relations with China. South Korea views the United States as a stabilizing presence in the region and sees the United States as continuing to play an important role, even if Korean reunification were to occur. In this

vein, there appears to be a strong desire by South Koreans for the U.S. government to retain its military forces there.

- Republic of Korea-China trade continues to grow. South Korea believes that expanded trade with China is essential to its economic future. At the same time, many South Koreans fear the loss of their technologies to China and consequent loss of commercial leadership.
- North Korea is the Republic of Korea's largest security concern. The concern includes North Korea's nuclear capability, its missiles, and anarchy resulting from possible regime collapse.

Hong Kong

- The United States maintains a keen interest in the development of democracy in Hong Kong and adherence to the "one country, two systems" principle permitting that development. The Commission remains concerned about China's willingness to honor its commitment to establishing universal suffrage in Hong Kong. Electoral reforms in Hong Kong that fall short of universal suffrage will damage confidence in the implementation of the "one country, two systems" principle.
- China's denial of entry to ships visiting Hong Kong is of great concern to the United States, especially when such denials are based on reactions to the internal policies of the United States. Denial of permission to a ship to enter Hong Kong harbor is even more disturbing when the ship is seeking safe harbor during a severe storm.
- Hong Kong immigration officials' refusal of entry for Chinese and American citizens during Olympic events suggests that a supposedly independent entry process has been influenced and politicized by the PRC government. Furthermore, Beijing's restrictions on visas for entry into China by American businesspeople living in Hong Kong placed stress on the business environment before and during the Olympics and hindered the growth of new business opportunities.

China's Media and Information Controls—The Impact in China and the United States

In the lead-up to the 2008 Olympic Games in Beijing, the Chinese government made extensive promises of both greater media openness and increased information access through the Internet. It kept some but not all of these pledges. There were limited improvements for foreign journalists, such as relaxations on travel restrictions. But the government's anxieties regarding "social stability" during this high-profile period led to increased surveillance of foreign journalists and other visitors, notably including intensified Internet monitoring conducted by China's security forces.

For China's own citizens, this year saw no significant improvement in media freedom or access to information. Instead, during the Olympics period, the government increased controls over the media and access to information. The Chinese government continues to control media outlets through direct censorship and deter-

mination or approval of personnel appointments in the media, educational, and cultural sectors, and it suppresses information that may be contrary to the preferred narratives of the ruling Communist Party. The government also uses its control of information to stoke Chinese nationalism and resentment of the United States in a manner harmful to productive relations between the two countries.

Conclusions

- The Chinese government has created an information control regime intended to regulate nearly every venue that might transmit information to China's citizens: the print and broadcast media, the Internet, popular entertainment, cultural activities, and education.
- The Central Propaganda Department and its subordinate regional bodies exercise extensive authority over the hiring and firing of personnel in the media, educational, and entertainment sectors.
- Personnel working in the media, educational, and cultural fields have been conditioned into self-censorship by the rewards and punishments of China's information control system and also face possible fines, demotion, termination of employment, and even prison for publishing information contrary to the party's preferred narratives.
- The Chinese government did not fully honor promises of greater media freedom that it made in conjunction with its bid to host the 2008 Olympic Games. Those promises now appear to have been tactical moves intended to smooth the way for the games rather than serious statements of policy intent. There were limited improvements in the latitude granted to foreign journalists, particularly in terms of travel rights within the country. However, many western journalists, particularly those from the United States and the United Kingdom, remained subject to government scrutiny and to opaque regulations restricting their activities.
- The Chinese government has established an extensive physical infrastructure to screen and monitor information on the Internet. An Internet police force of large but indeterminate size monitors and censors information on the Internet.
- The propaganda system's central purpose is to perpetuate the political authority of the Chinese Communist Party by concealing negative information about the party and its history and by propagating narratives intended to bolster the party's authoritarian rule. The propaganda system also actively seeks to inflame Chinese nationalism in order to co-opt nationalist sentiment as a means of legitimizing the party's authority.
- The U.S. government takes the position that current Chinese government regulations requiring all financial services companies to operate through a subsidiary of the Xinhua news agency, and similar regulations that make a Xinhua subsidiary a regu-

lator of all financial services information, violate China's signatory commitments to the WTO.

China's Compliance with Agreements Pertaining to its Export to the United States of Prison Labor Products

The Commission examined the issue of prison labor imports from China and found that the Chinese government has not complied with its commitments under two formal agreements with the United States to cooperate with U.S. officials to stop the export to the United States of goods manufactured by prison or other forced labor in China. Under U.S. law, it is illegal to import into the United States products made with prison or other forced labor. Under two China-U.S. agreements signed in the early 1990s, the Chinese government agreed to facilitate investigations by U.S. officials of allegations of goods produced by prison labor, including allowing U.S. officials to visit suspect facilities. For several years, the Chinese government has not complied with these provisions, making it impossible for U.S. officials to conduct complete and useful investigations of such allegations. This has produced a perverse set of incentives for law-abiding U.S. importers, who may find themselves at a competitive disadvantage to competitors who obtain merchandise made by Chinese prison labor.

Conclusions

- The Chinese government has not complied with its commitments under the 1992 Memorandum of Understanding and the supplementary 1994 Statement of Cooperation with the United States related to prison labor exports to the United States. It particularly has failed to comply with the requirement that it grant permission for U.S. authorities to visit suspect prison labor sites within 60 days of receipt of a U.S. request to do so. Consequently, these agreements have been ineffective in enabling the U.S. government to ensure that Chinese prison labor products are not imported into the United States.
- The official PRC position that "reeducation through labor" represents an administrative sanction rather than a form of prison incarceration, and that it therefore is not covered by prison labor agreements, leaves a large portion of the Chinese penal system outside the scope of the prison labor agreements between the U.S. and Chinese governments. The U.S. government does not agree with the Chinese government's characterization of "reeducation through labor" as distinct from prison incarceration. The Chinese government's refusal to include "reeducation through labor" facilities in the scope of prison labor agreements eliminates any realistic possibility that the United States reliably can identify sources of goods manufactured with prison labor and prevent their importation into the United States.
- The import of prison labor goods into the United States is illegal. Although it is likely that prison labor products represent only a small fraction of Chinese-manufactured products imported into the United States, the preponderance of evidence suggests that Chinese prison-made goods continue to enter the U.S. market.

- The current failure effectively to enforce U.S. law prohibiting importation of prison labor products has established a perverse set of incentives for U.S. importers and their retail partners in which those willing to purchase prison labor products from Chinese suppliers may achieve and retain with impunity a competitive advantage over competitors who source from legitimate manufacturers.
- U.S. businesses that have cause to believe a competitor may be importing products manufactured with prison or other forced labor, thereby gaining an unfair competitive pricing advantage, currently have no private right of action to pursue civil claims against that competitor.

THE COMMISSION'S KEY RECOMMENDATIONS

The Commission believes that 10 of its 45 recommendations to Congress are of particular significance. These are presented below in the order in which they appear in the Report. The complete list of 45 recommendations appears at the Report's conclusion on page 337.

- **Employing World Trade Organization trade remedies more aggressively.** The Commission recommends that Congress urge the administration to employ more aggressively all trade remedies authorized by World Trade Organization rules to counteract the Chinese government's practices. The Commission further recommends that Congress urge the administration to ensure that U.S. trade remedy laws are preserved and effectively implemented to respond to China's unfair or predatory trade activities so as to advance the interests of U.S. businesses.
- **Responding effectively to China's currency manipulation.** The Commission recommends that Congress enact legislation that will ensure an effective response to China's currency manipulation.
- **Ensuring disclosure of foreign state-controlled investments in the United States.** The Commission recommends that Congress, within the context of its broader review of financial and corporate regulation, create enforceable disclosure requirements regarding the investments in the United States of all foreign sovereign wealth funds and other foreign state-controlled companies and investment vehicles. Such disclosure requirements, embodied in law or regulation, should include but not be limited to holdings in any public or private company, hedge fund, private equity fund, investment partnership, and/or investment vehicle.
- **Monitoring reviews of foreign state-controlled investments in the United States.** The Commission recommends that Congress monitor the implementation and application of the Foreign Investment and National Security Act of 2007 and other appropriate laws and regulations with respect to the possibility of China's sovereign wealth funds acting in concert with other Chinese government-controlled companies and/or investment vehicles in a manner that technically fails to activate the established review process.

- **Identifying substandard shipments of imported fish into the United States.** The Commission recommends that Congress grant the authority to the Food and Drug Administration (FDA) to identify and indelibly mark imports of fish that fail to meet the agency's standards of safety and to seize and destroy shipments of fish that foreign governments report have been contaminated or that subsequently are recalled in that country. The Commission further recommends that Congress pass legislation to institute within the FDA an import inspection and equivalency of standards program for fish similar to the meat and poultry inspection program administered by the U.S. Department of Agriculture.
- **Examining the implications of China's use of media manipulation and "lawfare" for U.S. foreign policy and military activities.** The Commission recommends that Congress direct the U.S. departments of State and Defense to examine the implications of China's use of media manipulation and "lawfare" for U.S. foreign policy and military activities.
- **Ensuring adequate funding for programs to monitor and protect critical American computer networks and sensitive information.** The Commission recommends that Congress assess the adequacy of and, if needed, provide additional funding for military, intelligence, and homeland security programs that monitor and protect critical American computer networks and sensitive information, specifically those tasked with protecting networks from damage caused by cyber attacks.
- **Assessing the security and integrity of the supply chain for government and defense contractor computer equipment, and ensuring acquisition of equipment from trustworthy sources.** In order to maintain the security of computer networks used by U.S. government agencies and defense contractors, the Commission recommends that Congress assess the security and integrity of the supply chain for computer equipment employed in those government and contractor networks—particularly those used by the Department of Defense—and, if necessary, provide additional funding to ensure the acquisition of equipment from trustworthy sources.
- **Pressing China to reduce tariffs on environmental goods and services.** The Commission recommends that Congress urge the administration to press China to reduce or eliminate in a timely fashion its tariffs on environmental goods and services so as to encourage the import of clean energy and pollution control technologies into China.
- **Establishing a "private right of action" against those suspected of importing products of prison labor.** The Commission recommends that Congress enact legislation establishing a "private right of action"—i.e., civil litigation—allowing a business to file suit against a competitor suspected of importing prison labor products in violation of U.S. law and/or knowingly falsifying customs information in order to gain an unfair competitive advantage.

INTRODUCTION

In 2008, China marked the 30-year anniversary of the economic and social reforms that Communist Party leader Deng Xiaoping introduced to a country crippled by the Cultural Revolution and other excesses of the era of Mao Zedong. While the party would maintain its absolute control over all other aspects and institutions of the country, the economy was encouraged to evolve in ways antithetical to the founders of the People's Republic. Instead of confining the economy in a Maoist communal structure, Deng sought a new, more urban architecture, sometimes referred to as "capitalism with Chinese characteristics" or "market socialism."

Neither term is adequate to describe China today. China's economic system is changing so rapidly that it not only is confounding classification but also is producing a wake big enough to rock other institutions, including the Communist Party itself. Yet western expectations that China's path of economic liberalization also will lead it eventually to free market capitalism and even to democracy have been dashed. As this Report describes, China has taken a very different path. And China's lengthy economic growth spurt has been employed more as a justification of continued Communist Party rule than as a stepping stone to political reform.

Notable in 2008 was China's successful staging of the Summer Olympics, a goal that Beijing had set for itself to prove the government's competence and to place China among the ranks of the developed nations that have enjoyed a near monopoly in hosting the games. But while China's athletes did manage to win more gold medals than any other country, the government's organization of the Olympics also called the world's attention to the difficulty China is having in dealing with the environmental consequences of its rapid economic growth as well as Beijing's relentless intolerance of free speech, free thought, and a free press.

The Commission has been given the responsibility by Congress to advise it on economic and security policy toward China. Our findings are contained in this, the Commission's sixth major Report to Congress. To complete its work, the Commission held eight hearings in Washington, DC, and one field hearing in New Orleans, Louisiana. Commissioners attended classified briefings with seven major intelligence agencies over three days and are preparing a classified report on their findings. Commissioners visited the Chinese cities of Beijing, Taiyuan, and Hong Kong as well as Seoul, Korea; Tokyo, Japan; and Taipei, Taiwan. The Commission also contracted for independent research on topics the Commissioners view as important to U.S. policy toward China.

China's double-digit economic growth continued throughout 2008, adding to a trend over a 30-year period in which China's economy has expanded by an annual average of nearly 10 percent, a pace that now is slowing as a result of the global economic downturn.

During the year, China continued to shoulder more international responsibilities. China's involvement in the Six-Party Talks assisted the negotiations to dismantle North Korea's nuclear weapons production capacity. China also has increased its cooperation with efforts to halt the spread of nuclear weapons. China peaceably settled border disputes with India and Russia. China also took a more active role within the World Trade Organization (WTO), although its actions helped derail the negotiations in the Doha Round. Rather than risk international opprobrium for conducting a repeat of last year's antisatellite missile attack, which littered space with dangerous debris, China emphasized peaceful efforts by successfully conducting its first space walk in September from a three-man orbiting capsule.

On the other hand, China's involvement in the international efforts to persuade Iran to give up on its nuclear power program so far have amounted to little more than blocking tough sanctions in the United Nations (UN) Security Council. Also in the realm of foreign policy, Chinese scholars have been arguing that its sovereignty above its territory extends into outer space.

Even though it is primarily focused on civilian uses, China's space program also is providing the People's Liberation Army with the capability of tracking and targeting U.S. military forces in the western Pacific. Even more worrisome are China's rapidly advancing cyberspace capabilities. The U.S. military is highly dependent on communications and computer networks, both of which are jeopardized by China's demonstrated ability to penetrate U.S. government computer networks. Many of the recent intrusions into U.S. computer networks, including unclassified but critical U.S. military systems, have been traced back to computer servers in China.

The Chinese leadership in 2008 approved a new rudimentary labor law. Although it lacks important workers' rights provisions, such as the right to strike or to join any but a single Communist Party-controlled union, the law does provide for guarantees that workers will be paid by employers and receive some compensation if they are laid off. The leadership also approved significant new antitrust and patent law changes modeled, in part, after internationally accepted standards. While the implementation of the laws will bear watching to ensure that they are applied equally to domestic and foreign companies, the regulatory changes have a positive potential. Similarly, Beijing has shown a growing recognition that it must mitigate the harm to the environment produced by its dependence on coal-fired power plants; its fuel subsidies, which encourage consumption over conservation; and its tolerance at a local level for factories that foul the air and water.

In some cases, it has been the Chinese people, rather than the government, who successfully have demanded necessary changes. But this too often occurs only after tragedy. China's citizens have been ill served by a lack of enforcement of health and safety standards at all levels of government. This regulatory failing has had international consequences, as food and medicines tainted with industrial solvents and toys contaminated with lead are among China's exports to the rest of the world. As detailed in this Report, the United States and China have agreed on some measures to monitor

the safety of China's seafood exports, but much remains to be done on a wide variety of China's food exports.

China's economic liberalization also has its limits. Beijing has chosen carefully among the menu of economic reforms to select only those that enhance its own prospects for growth. In the most egregious example, the government of China continues to control tightly the value of its currency, the RMB, at an artificially low rate by means of strict capital controls. This violates the spirit and the letter of International Monetary Fund bylaws, which require members to "avoid manipulating exchange rates ... in order to prevent effective balance of payments adjustments or to gain unfair competitive advantage." Rather than try to hide the manipulation of the RMB, Chinese officials openly debate the value of the RMB that the central bank should establish in order to keep China's exports booming—even while claiming that China complies with international norms of monetary policy. The result of this policy is evident in the rapid accumulation of China's foreign currency reserves—at nearly \$2 trillion, it is the largest such hoard in the world.

China traditionally has held its foreign currency reserves, two-thirds of which are estimated to be in dollars, in longer-term U.S. Treasury and government agency securities as well as U.S. corporate bonds. That trend is changing since China established in late 2007 its first official sovereign wealth fund, and as a result of the global financial crisis. The combination of China's massive foreign currency reserves, its establishment of sovereign wealth funds, and the potential for China's state-owned companies and investment banks to begin acquiring American companies and other assets is the subject of a section of this Report. The Commission concludes that the potential size and rapidly evolving nature of China's government-owned or -controlled investment in the United States requires that the U.S. government closely examine this development and its implications.

Some examples of China's objectionable economic actions are perennials and are described in this and past Commission Reports. The country's lax enforcement of intellectual property protections continued throughout 2008. It was the subject of a preliminary World Trade Organization ruling that China violates the WTO rules in two important aspects relating to protection of works that have been rejected by Chinese censors and auctioning of seized counterfeit goods. (By contrast, China's enforcement of its own copyright on Olympics-related sales was nearly absolute.) China continues to provide favored domestic companies and industries with additional government subsidies, including favorable tax treatment; low-interest loans and loan forgiveness; discounted land and electrical power; lax enforcement of pollution control regulations; and deliberate market-entry barriers, such as China's insistence on maintaining government control or ownership of a dozen favored industries, such as telecommunications, aviation, steel, automobiles, and shipping.

This year, the Commission looked into the disturbing issue of prison labor in China and found that the government in Beijing still is not complying with its formal bilateral agreements to refrain from exporting the products of prison labor and to allow timely

U.S. inspections of prisons to ensure that no products manufactured there are being exported. The Commission also examined China's energy and environmental policies. Other than an overdue concession by China's leadership that pollution is a serious and growing problem, the Commission found little cause for optimism. Chinese leaders are expending little effort in improving energy efficiency or in mitigating the increasing environmental damage that has resulted from strong economic growth combined with lax pollution controls. The notable exception was China's strict enforcement of pollution regulations during the Summer Olympic Games, but many of these measures were temporary. China is now widely acknowledged as the world's largest emitter of carbon dioxide gas and yet has resisted committing itself to reduce emissions in order to counter climate change.

In the coming year, the Commission intends to continue its examination of these issues as well as others designated by Congress to analyze whether U.S.-China policy is serving the interests of the American people.

CHAPTER 1
**THE UNITED STATES–CHINA TRADE
AND ECONOMIC RELATIONSHIP**
**SECTION 1: THE U.S.–CHINA TRADE AND
ECONOMIC RELATIONSHIP’S CURRENT STATUS
AND SIGNIFICANT CHANGES DURING 2008**

The legislation passed by Congress in 2000 to establish the Commission sets forth specific topical areas of concern with respect to the People’s Republic of China and associated issues and requires the Commission to investigate and report to Congress on those topics. Congress has modified those topical areas in the intervening years. Today there are eight mandated topics. (They can be found at 22 U.S.C. 7002 and at the Commission’s Web site—www.uscc.gov. They also are printed in full in appendix I of this Report, beginning on page 349.) At the beginning of each section of this Report, the mandated topical area (or areas) that section addresses is identified.

“The Commission shall investigate and report exclusively on—
...

“WORLD TRADE ORGANIZATION COMPLIANCE—The compliance of the People’s Republic of China with its accession agreement to the World Trade Organization.

“ECONOMIC TRANSFERS—The qualitative and quantitative nature of the transfer of United States production activities to the People’s Republic of China, including the relocation of high technology, manufacturing, and research and development facilities, the impact of such transfers on United States national security, the adequacy of United States export control laws, and the effect of such transfers on United States economic security and employment. ...”

Introduction

At the beginning of 2008, with its economy growing at around 10 percent a year despite global economic turmoil, with foreigners still clamoring to invest there, and with exports booming, China’s economic prospects seemed assured. But then came a surge in global commodity prices that put China at risk of inflation in such core areas as food and fuel. A plunging Shanghai stock market added

to the uncertainty during the summer, followed by increased anxiety that the subprime mortgage difficulties in the United States eventually would diminish America's appetite for Chinese exports. By the fall, these fears seemed borne out. In its bleakest forecast in years, the International Monetary Fund (IMF) said the global downturn will weaken growth in emerging economies, though those economies still will drive global growth. In the first nine months of 2008, China's economy expanded by 9.9 percent. Overall, China's economic growth rate is expected to slow from 11.9 percent in 2007 to 9.7 percent in 2008.¹ China's exports, however, continued to grow.

Still, despite Shanghai's stock market plunge, and indications that Shanghai is suffering from its own real estate bubble, China overall appears more capable than other nations of weathering the global financial storm that first swept over Europe, Japan, Australia, and the United States in the late summer and fall of 2008. China's domestic savings rate is among the highest in the world, providing China's banks with all the capital they need. In fact, until China's central bank joined those of 21 other nations in cutting short-term interest rates in early October 2008, the People's Bank of China had been raising rates to tamp down inflation brought on by too much liquidity in China and rising prices for imported commodities such as oil. "The urgency for fiscal and monetary easing is less pressing in China relative to the rest of the world as growth slows, not slumps, while financial sector risks are more modest owing to high saving rates, low loan-to-deposit rates, and a government able and willing to recapitalize the country's largest commercial banks," noted Ben Simpfendorfer, an economist with Hong Kong's branch of the Royal Bank of Scotland.²

Beijing has been able to fall back on its economic record and argue to the Chinese people that the Chinese Communist Party (CCP) alone can continue to lift the world's most populous country from rural poverty to a place among the world's leading nations. The dramatic changes in the world economy, however, will require a difficult balancing act. Too quick a restructuring of China's domestic economy will jeopardize the employment prospects for millions; too slow a change will hinder economic growth. While Chinese officials say they plan to speed up the reorganization of China's state-owned sector through mergers and asset sales in order to boost efficiency and profits, the same officials are intent on maintaining state ownership and control over a dozen key sectors, including energy and natural resources, telecommunications, and aerospace, that are deemed too important to turn over to private or foreign hands.* The state still directly controls about 40 percent of China's economy and indicates that it will continue to do so, especially through state-owned and state-controlled enterprises and other favored industries.

*China regards seven industries as critical to national security and economic prosperity and therefore places them under absolute state control. These "strategic industries" are armaments, power generation and distribution, oil and petrochemicals, telecommunications, coal, civil aviation, and shipping. China also has designated five "heavyweight industries"—machinery; automobiles; information technology; construction; and iron, steel, and nonferrous metals—in which enterprises can be owned jointly by private and government actors, with the government retaining oversight.

The widespread intervention in the market by China's government, and an array of trade-distorting measures, undermine China's integration into the global economy—violating terms to which it agreed when it acceded to membership in the World Trade Organization (WTO) in 2001. Lack of transparency in its regulatory processes, continued protection and promotion of domestic industries to the disadvantage of foreign competition, import barriers, export preferences, and limitations on foreign direct investment in certain sectors make it difficult for foreign firms to operate in China.³

China's advance onto the world stage as a global economic power has been accompanied by a new willingness to play a larger role in global economic decision making, but it remains to be seen how China will attempt to wield its influence. First signs of a new kind of assertiveness, however, were seen during the Doha Round of World Trade Organization negotiations in July 2008, as China joined with India to strongly oppose initiatives from the United States and Europe—a move that helped to derail the talks.

Trade Relationship

Even with the global credit crunch, worldwide price fluctuations in oil and other commodity markets, and a confidence-shattering bust in the Shanghai stock market, the Chinese economy has slowed down in 2008 much more moderately than the economies of the United States or European nations. China has enjoyed one of the biggest export booms in modern history, with a global trade in goods surplus of over \$316 billion in 2007, an increase of more than 20 percent year-on-year.⁴ In 2007, China's exports to the United States were five times the amount of its imports: China exported \$321.69 billion of goods to the United States and bought \$65.07 billion in imports from the United States, which left the United States with a bilateral trade deficit of \$256.61 billion.⁵ There are some signs the size of the U.S. deficit with China may grow at a slower pace due to the U.S. economic slowdown and higher transportation costs, among other factors. For the first eight months of 2008, China's goods exports to the United States were \$217.3 billion, while U.S. exports to China were \$49.6 billion, with China's trade surplus standing at \$167.7 billion, an increase of 2.4 percent over the same period last year (\$163.8 billion).

U.S.-China Trade in Goods (\$ in billions), 2000–2007

	2000	2001	2002	2003	2004	2005	2006	2007
U.S. Exports to China	16.14	19.11	22.04	28.29	34.64	41.80	55.04	65.07
Percent Change	23.21%	18.38%	15.34%	28.34%	22.45%	20.68%	31.67%	18.23%
U.S. Imports from China	100.11	102.40	125.32	152.67	196.97	243.89	288.13	321.69
Percent Change	22.38%	2.29%	22.38%	21.83%	29.02%	23.82%	18.14%	11.65%
Balance	-83.97	-83.30	-103.28	-124.38	-162.34	-202.09	-233.09	-256.61

Source: U.S. Department of Commerce, Bureau of Economic Analysis, 2008.

U.S. exports to China were 20 percent higher in the first half of 2008 compared with the same period in 2007, while imports from China were up only 6 percent.⁶ However, America's import bill for goods from China is so huge that the rising exports have not dent America's overall trade deficit with China.

China's global exports from January to September 2008 rose 22.3 percent to \$1.07 trillion, while imports were up 29 percent, at \$893.1 billion.⁷ Meanwhile, the price of China's imports has grown over the past year, due in part to higher costs for its petroleum imports. As a result, China's global trade surplus narrowed 2.6 percent year-on-year to \$180.9 billion in the first three quarters of 2008.⁸

The composition of China's exports also is changing. Textiles and apparel accounted for most of China's global manufacturing surplus until 2004. But by 2007, China's surplus in electrical and nonelectrical equipment (including computers) and parts surpassed the surplus for textiles/apparel and, soaring by 60 percent so far in 2008, could produce a surplus this year that is half again as large as the surplus for textiles/apparel.⁹ (See chap. 1, sec. 3, for an in-depth examination of the changing nature of U.S.-China trade.)

The cheaper dollar is one factor that already is helping reduce the rate of increase in the U.S. trade deficit with China and will continue to do so if Chinese authorities allow the appreciation of its currency, the renminbi (RMB), to respond to market forces. The declining dollar has made American exports to China more competitive and Chinese imports into America less so. But the change has been too small so far to halt the growing imbalance. The RMB has risen in value against the dollar by 18.5 percent in three years, during which time the trade imbalance between China and the United States has grown.¹⁰ In the future, shifts in domestic spending in each country also may have an effect on the trade imbalance. America's real domestic demand has stagnated over the past year, whereas China's has risen by 10 percent.¹¹

China's Exchange Rate Regime and Pursuit of Stability

The U.S.-China trade relationship remains unbalanced. The U.S. trade deficit with China was about 32 percent of the total U.S. trade deficit in 2007—easily America's largest bilateral imbalance.¹² Economists and policymakers identify China's lower labor costs, intellectual property violations, and export and domestic subsidies as major contributors to this imbalance. China's manipulation of its currency also has contributed to the imbalance. While China has allowed its currency to appreciate by 18.5 percent over three years, the impact of the changes should not be overstated.

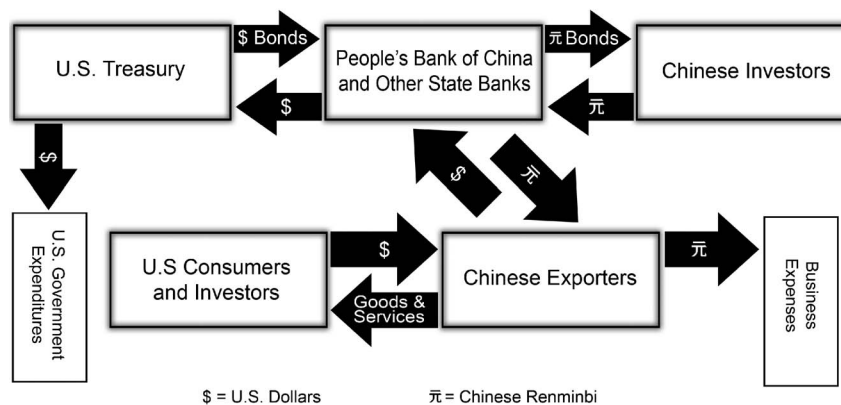
Although bilateral trade imbalances between the United States and other individual nations may be less of a concern if they are the result of free market forces, those, such as the U.S.-China imbalance, that result from deliberate economic policies undertaken by one of the trading parties are an issue. The U.S. current account deficit, combined with the federal budget deficit, causes considerable anxiety among both economists and foreign investors who worry that Americans will find it increasingly difficult to meet both

principal and interest payments on such a large debt. The total federal debt burden of \$10.2 trillion already is having a significant impact on economic growth, which will only increase in severity.¹³

While currency manipulation has been a useful tool in supercharging China's export machine, the practice has begun to cause problems for China's policymakers, including a persistent inflationary spiral. In simple terms, maintaining a low value for the RMB means that Chinese exports will be cheaper than they would be if the price of the currency were determined by market forces. The result is that Chinese goods are cheaper in the United States, and U.S. exports are more expensive in China, which provides China with an effective export subsidy and an incentive for U.S. companies to move their production to China. This problem also confronts U.S. exporters in other markets where they compete against Chinese products.

Economists' estimations of the degree to which the RMB is undervalued vary. The Peterson Institute for International Economics, for example, said in July 2008 that the RMB was still undervalued against the dollar by about 30 percent, even after the RMB had appreciated over 18 percent since moving to a "managed float" in July 2005.*¹⁴ In contrast, most developed nations allow their currency to be traded on the open market and intervene only occasionally to try to temporarily influence short-term price swings. Some of China's Asian neighbors also keep their currencies undervalued against the dollar so as to remain competitive with China on exports. As China has done, Hong Kong, Taiwan, and Malaysia have purchased U.S. dollars in an effort to control the value of their currencies.

Currency Sterilization by the People's Bank of China



Beijing's tight management of the RMB involves the People's Bank of China issuing massive amounts of RMB-denominated bonds. First, the Chinese banks exchange dollars and other foreign

* Under considerable pressure from the U.S. administration and Congress, China has taken some small steps in this direction, all the while claiming that the government will not respond to pressure. In July 2005, China engineered a 2.1 percent overnight rise in the value of the RMB and announced a policy that would allow a "managed float" of the RMB within a very narrow daily trading band of 0.3 percent.

currency for RMB to obtain foreign exchange before it can go into circulation in China. Then, in a process designed to fight the inflation in China that otherwise would occur from so much RMB being added to the economy, the central bank issues RMB-denominated bonds. This “sterilization” process has not always been effective, and it has helped fuel inflation despite the central bank’s efforts to absorb the excess money by selling bonds and raising bank reserve requirements.

Without the dollar purchases by the central bank, the supply of dollars in circulation in China would rise rapidly and quickly lose value relative to the RMB. Under present economic conditions, markets also would expect the RMB to rise if the “managed float” were abandoned. Critics of China’s currency policy have suggested that China revalue its currency by fiat, much as it last did in July 2005, as an important step toward a free-floating exchange rate.

In the first seven months of 2008, China’s central bankers sought to accelerate the RMB’s appreciation to keep a tighter grip on inflation, allowing the currency to rise nearly 7 percent during the period.¹⁵ But there has been a noticeable slowdown in the RMB’s appreciation, with the RMB rising just 0.08 percent against the dollar in the third quarter of 2008, the smallest gain since the RMB moved away from a fixed exchange rate regime.¹⁶ The reason is that meaningful appreciation, aimed at cutting inflation, created problems of its own, not the least of which are an increase in the price of China’s exports and the so-called “hot money” inflows—highly liquid capital attracted by the expectation that the RMB will continue to rise. Left unchecked, the hot money inflows also could fuel inflation.¹⁷

The marked slowdown of currency appreciation has sparked speculation that Beijing has moved away from a policy of using the currency as a tool to counter inflationary pressures to a policy of using it as an instrument to promote export growth. Cheng Siwei, vice chairman of the standing committee of the National People’s Congress and an influential voice in Chinese economic policy making, told the *Financial Times* that China does not “need to accelerate the appreciation of the RMB [because] the dollar will not weaken very much and may get stronger.”¹⁸

China’s Communist Party leadership sees its legitimacy and political monopoly as inextricably linked with the economy’s good performance; therefore, any slowdown is unnerving and produces a response.¹⁹ China’s Politburo, the Communist Party’s top decision-making body, said in a meeting in July 2008 that maintaining “steady” growth and fighting inflation were its top priorities.²⁰ Though economic growth in China is expected to slow from a high of 11.9 percent in 2007 to 9.7 percent in 2008, it is still remarkably high by global standards, and the slight dip in China’s growth rate would not warrant a halt in RMB appreciation if the RMB were allowed to float freely.*²¹ However, yielding to a host of industrial sectors that are “protected” by an undervalued RMB, China appears to have decided to pause appreciation.²² Bank lending quotas

*There are some suggestions that China’s economic slowdown may extend beyond this year. The International Monetary Fund projects 9.3 percent growth in 2009. See IMF, *World Economic Outlook 2008* (Washington, DC: October 2008), p. 2. www.imf.org/external/pubs/ft/weo/2008/02/pdf/text.pdf.

were lifted by 5 percent; and additional bank loans are to be directed toward small- and medium-sized businesses and agriculture.²³

The RMB undervaluation also limits the policy options of other countries—notably countries like Taiwan, Japan, and Malaysia that compete with China for export markets and do not want to see their exchange rates appreciate relative to the RMB. A coordinated appreciation of Asian currencies might be the only option, as no Asian country wants its currency to appreciate too much relative to the others for fear of being priced out of the global market by China's products. China's undervaluation, then, spurs other nations in the region to ensure artificially that their currencies remain undervalued, and the ultimate result is that the entire Asian region realizes large trade surpluses. This necessarily means other regions will have large trade deficits, inhibiting global adjustment.

The economic impacts of China's currency undervaluation and the concern about their effects on the global economy have not prompted the IMF to depart from its long-standing conclusion on the issue. In its half-yearly *World Economic Outlook 2008* report, the IMF said the RMB "remains substantially undervalued," an understated conclusion compared to a determination that the RMB is "fundamentally misaligned."²⁴ The latter conclusion would have indicated that China does not conform to guidelines prohibiting members from valuing their currency in a way that creates international instability and gives an unfair competitive advantage to its exporters, which would trigger significant IMF pressure on China to change its currency policy.*²⁵

In August 2008, the People's Bank of China launched a new exchange rate department.²⁶ This may indicate that China now sees the RMB exchange rate as a more important monetary policy instrument.²⁷ In the first half of 2008, for example, the People's Bank of China allowed the RMB to appreciate in order to stem inflation, but later, as the global economic situation began to deteriorate, it stopped the appreciation to boost exports. According to the bank's statement issued at that time, the new department's objectives will be tracking the foreign exchange market, implementing currency policy, formulating and implementing foreign exchange market regulations and controls, adjusting and controlling supply and demand in the domestic foreign exchange market, and seeking to create an offshore market for the RMB, in tandem with the process of internationalizing the RMB.²⁸

An exchange rate office currently operates under the Monetary Policy Department of the People's Bank of China. After the reshuffle, the new exchange rate department will absorb the office of exchange rates and office of foreign exchange transactions but also may take on the duties of "analyz[ing] and predict[ing] the changes

*The administration thus far has chosen not to bring a WTO case against China on the currency issue or to bring a formal complaint to the International Monetary Fund, which has some jurisdiction over international currency matters. Nor has the U.S. Department of the Treasury in its biannual reports on global currency manipulation been willing to cite China for that transgression. The administration has justified its decision not to cite China by pointing, in the 1988 law that requires the report, to a provision stating that a country can be cited only if it has deliberately manipulated its currency value to gain an export advantage. The administration argues that it cannot discern Chinese leaders' intent and therefore cannot cite China for currency manipulation. See U.S. House of Representatives, Committee on Ways and Means, Subcommittee on Trade, testimony of Deputy Assistant Secretary of the Treasury Mark Sobel, May 9, 2007. The 1988 law is The Omnibus Trade and Competitiveness Act of 1988.

of supply and demand in the foreign exchange market and provid[ing] the [People's Bank of China] with suggestions," which is currently the responsibility of the State Administration of Foreign Exchange (SAFE).²⁹ It is too early to tell if this new development will lead to bureaucratic rivalry or closer cooperation between SAFE and this new department or how it will impact SAFE's autonomy and investment strategies; what the impact will be on the People's Bank of China's sterilization operations; or if, in fact, these are preparations for more aggressive RMB reform.³⁰ Regardless, no decision about exchange rates can be made without State Council approval, so the true extent of changes, if any, in China's monetary policy, including interest rates, credit control, and sterilization, remains uncertain until further information becomes available.

Fannie Mae, Freddie Mac, and China's Holdings of U.S. Agency Securities

Due to its managed exchange rate, Chinese economic policy is still dependent upon the accumulation of large amounts of foreign exchange reserves—mostly dollars—which it then uses to purchase U.S. Treasuries and long-term securities of agencies such as the U.S. government-guaranteed (and now nationalized) mortgage holders Fannie Mae and Freddie Mac.* The United States welcomed these purchases because they helped to keep U.S. interest rates low.† By some estimates, as of June 2008, China held around \$448 billion in agency bonds, or about 34 percent of the total \$1.3 trillion held by foreign private investors and government institutions.³¹ The People's Bank of China and other Chinese banks purchased Fannie Mae and Freddie Mac securities, even without an explicit U.S. government guarantee at the time, because the two mortgage giants paid slightly higher rates of interest than did U.S. Treasuries.

Even as the concerns over the health of the biggest U.S. mortgage finance companies intensified, foreign investors—China the biggest among them—were asking the U.S. Treasury to bolster Fannie Mae and Freddie Mac, according to news reports.³² This caused U.S. officials to fear that divestment of bonds held by foreigners would push up interest rates in the United States.³³

President Bush called China's President Hu Jintao in mid-September 2008 to talk about "what the administration was proposing . . . to restabilize the market," according to a White House spokesman.³⁴ A Chinese trade official confirmed that the call's purpose "was to ask for China's help to deal with this financial crisis by urging China to hold even more U.S. Treasury bonds and U.S. assets."

* Agency debt includes both that of official U.S. agencies such as the Tennessee Valley Authority and that of government-created enterprises such as Fannie Mae, because it has long been assumed by the market that such quasi-government agency debt is backed by the federal government, an assumption borne out by the response of the federal government to the credit crisis.

† Low U.S. interest rates have also made it much cheaper for individuals and households to borrow money. This, in turn, helped inflate the real estate bubble, which has led to the current collapse of the real estate market and credit crisis. See Niall Ferguson, "Rough Week, but America's Era Goes On," *Washington Post*, September 21, 2008.

**Fannie Mae, Freddie Mac, and China's Holdings of
U.S. Agency Securities—Continued**

Since the collapse of the two mortgage companies, Chinese banks have been selling their housing agency bonds. The Bank of China,³⁵ China's fourth-largest commercial bank, has cut its portfolio of mortgage-backed securities issued by Fannie Mae and Freddie Mac by a quarter since the end of June 2008.³⁶ China Construction Bank Corp. said it had cut its Fannie and Freddie holdings to just above \$2 billion by the end of July, down from \$3.2 billion a month earlier. The Bank of Communications Co. sold all its \$27 million in holdings in the two entities in early July.

U.S.-China Bilateral Dialogues

Through ongoing bilateral interaction like the high-level Strategic Economic Dialogue (SED) and the Joint Commission on Commerce and Trade, the United States is pushing China to accelerate the liberalization of its economy. According to U.S. Treasury Secretary Henry Paulson, by focusing on areas in which China's reform agenda intersects with U.S. interests, the SED "has found new and constructive ways to discuss some of the most important and contentious matters in the U.S.-Chinese economic relationship." These include trade imbalances, growth sustainability, and product safety.³⁷ (For a detailed look at the safety of China's seafood imports, see chap. 1, sec. 4.)

During the June 2008 SED, the United States and China agreed to launch negotiations for a bilateral investment treaty. Secretary Paulson said he believed "such a treaty would protect the large amount of U.S. investment in China and open up new opportunities for U.S. investors while encouraging more Chinese investment in the United States."³⁸ The first round of negotiations on the investment treaty was completed during September 2008. The U.S. administration said the United States wants the agreement also to include a national security exception that would allow the United States to continue imposing export controls and subjecting investments with possible national security implications to review by the Committee on Foreign Investment in the United States (CFIUS).³⁹

One of the most critical issues will be how to deal with Chinese state-owned or state-controlled enterprises that are given preferential treatment by China's government.⁴⁰ China strictly limits investments by foreigners in certain sectors of its economy deemed essential for national security and economic prosperity, such as telecommunications, aviation, information technology, and heavy machinery. In addition, these sectors are heavily subsidized by the government and, among other benefits, enjoy access to land and loans at favorable terms. This would make it easier for Chinese government-owned companies to invest in the United States and to compete unfairly with U.S. firms.

Other key differences remain between the United States and China on what will be included in a bilateral investment treaty, including transparency in drafting and publishing regulations and free transfer of funds from profits.⁴¹ One issue bound to be con-

troversial is whether the treaty will cover foreign investments before they are made (“pre-establishment”) or only after they are made (“post-establishment”), which determines how national treatment will be granted. Pre-establishment protection ensures that a host country’s “commitment to grant national treatment on entry extends in principle to all foreign investors unless such investment is to take place in activities or industries specifically excluded by the host country in a treaty” and therefore is essential for foreign firms that now face more obstacles than Chinese domestic investors.⁴² Post-establishment protection preserves the right of the host country to treat existing domestic and foreign investors differently, for example by applying “screening laws and operational conditions on admission.”⁴³ China’s other bilateral investment treaties cover only post-establishment, whereas U.S. investment treaties cover both, and full coverage is seen as critical by the U.S. government.⁴⁴

Another issue that is likely to be controversial is the so-called “negative list approach” to identifying in the investment treaty limited exceptions or specific sectors. A negative list approach assumes that all laws and regulations are bound to the national treatment and other provisions of the investment treaty unless specifically exempted in an annex.⁴⁵ This ensures that the broadest possible scope of policies and practices is covered by the investment treaty. All previous U.S. bilateral investment treaties have used this approach, but China has yet to agree to its use.⁴⁶

The 19th meeting of the Joint Commission on Commerce and Trade took place in September 2008, with participants reaching agreements on poultry exports and medical devices. The U.S. Food and Drug Administration (FDA) and China’s General Administration of Quality Supervision, Inspection, and Quarantine jointly announced they will require only “one test, one report, one fee, and one factory inspection” for medical devices, which is expected to cut the medical device approval time “in half,” according to the Joint Commission on Commerce and Trade fact sheet.⁴⁷ The Commission questions the efficacy of the Chinese inspection system in light of the long history of Chinese food safety scandals, the most recent of which is the contamination of Chinese milk with melamine. Some of the companies involved, including Sanlu, a leading Chinese dairy company, were exempt from inspection and monitoring by the government through a program that is based on the idea that companies that have scored well on past quality tests can be trusted to regulate themselves through internal inspection.⁴⁸

China also agreed to lift “avian influenza-related bans” on poultry imports from Pennsylvania, Connecticut, Rhode Island, West Virginia, Nebraska, and New York and agreed to work jointly to address remaining bans on poultry from Virginia and Arkansas.⁴⁹ The U.S. Department of Agriculture (USDA) exchanged letters on agricultural cooperation with China’s Ministry of Agriculture and together with China’s General Administration of Quality Supervision, Inspection, and Quarantine updated a 2006 food safety Memorandum of Cooperation to establish clear guidelines for handling food safety issues pertaining to meat, poultry meat, or egg products.⁵⁰

China and the Global Economy

Changes in Chinese Trade-related Laws

The Chinese government recently has adopted policies that may seek further restrictions on foreign access to China's markets, including new antimonopoly and patent laws. Although much depends on how these laws ultimately are implemented, they appear to favor some of the domestic companies that the Chinese government promotes as "national champions."⁵¹ In addition, Chinese regulatory authorities allow little comment from foreigners in their rule-making procedures.⁵²

The Antimonopoly Law

China's new antimonopoly law, which took effect in August 2008 after nearly 15 years of drafting, was hailed by the Chinese government as a milestone in the creation of an economy based on law. For many foreign companies, the new rules will be an improvement over the status quo, with its vague guidelines and unpredictable restrictions. The enforcement of new laws in areas such as price fixing and monopolistic behavior also could help force open domestic markets to outside competition.⁵³

The antimonopoly law is based loosely on U.S. and European models and covers anticompetitive behavior and abuse of market dominance.⁵⁴ Some foreign companies, however, are concerned that some aspects of the antimonopoly law could be used selectively against them and not deployed equally against their Chinese rivals, depending on how China chooses to enforce the new law. Industries that "implicate national economic vitality and national security, which are controlled by state-owned enterprises, and . . . industries in which there are legal monopolies" will be supervised by the government and will be functionally exempt from the law, provided they do not abuse their dominant position.⁵⁵ In China, a dozen heavyweight, preferred industries, such as power generation, civil aviation, and iron and steel, primarily are comprised of large, state-owned enterprises and still dominate the economy, and this suggests the government remains disinclined to subject them to new scrutiny.⁵⁶

According to the regulations, in their reviews of mergers and acquisitions the authorities will need to consider, among other factors, the parties' market shares and market power, market concentration and structure, likelihood of elimination or restriction of competition, and effects on consumers and other relevant business operators—all of which is fairly standard in other nations' laws. However, the law also requires consideration of the effect "on the development of the national economy and public interest," which directly raises the question of whether merger enforcement will be utilized for macroeconomic or even protectionist purposes.⁵⁷

The law also provides that it is "applicable to the conduct of business operators to eliminate or restrict market competition by abusing intellectual property rights," a concept comparable to patent misuse under U.S. law.⁵⁸ However, many foreign companies fear that Chinese antitrust enforcers might be pressured by domestic industry to use this provision to restrain foreign intellectual prop-

erty (IP) rights holders from enforcing their IP rights against Chinese competitors.⁵⁹

Most specific guidelines for the antimonopoly law have not yet been released, but foreign companies worry that revenue thresholds in China will trap many transactions that have few implications for local competitors or consumers or that big companies anywhere in the world will have to wait for permission from Beijing before they can complete large global deals.⁶⁰ The law also could spell trouble for private equity deals, given the trend to bigger deals with more expansive impact. For example, a private equity fund in Europe involved in a buyout of an American company will have to worry about antitrust clearance in China, even if the deal is being conducted entirely outside China, if the transaction affects competition in China's domestic market.⁶¹ The reach of the U.S. antitrust law similarly is not limited by geographical boundaries. Even in cases of foreign commerce that do not involve imports to the United States, the Foreign Trade Antitrust Improvements Act of 1982 states that anticompetitive conduct that "affects U.S. domestic or foreign commerce may violate U.S. antitrust laws regardless of where such conduct occurs or the nationality of the parties involved," provided this conduct had "a direct, substantial, and reasonably foreseeable effect" on domestic import or export commerce.⁶²

Another major concern for multinationals is whether China's antitrust law is designed to protect domestic companies. Up until now, unlike foreign companies, Chinese companies have had no obligation to file for merger approval.⁶³ There also is concern about the confidentiality of the antitrust review process and whether any proprietary information disclosed by foreign companies may be abused. The government's enforcement and discretionary powers also remain uncertain. Many details will be filled in by regulations when they are promulgated, but the antimonopoly law's provisions leave considerable room for discretionary enforcement. This reduces predictability and is of even greater concern in China than it would be in other countries, such as the United States, because China's civil law system does not rely on case law precedents.⁶⁴

Intellectual Property Rights and Patents

China has a history of flagrant violations of intellectual property rights (IPR). It now appears poised to revamp its IPR laws and regulations, which could either strengthen the protections or place another tool in Beijing's arsenal for promoting domestic industry by constraining the rights of foreign companies. In August 2008, the National People's Congress Standing Committee, China's top legislative body, began consideration of the Third Amendment to China's Patent Law. An important new proposal involves the adoption of an "absolute novelty" standard that will make it hard to obtain a Chinese patent for inventions that are already in use overseas (amended article 23 of China's Patent Law).⁶⁵ Another proposed revision (amended article 21 of China's Patent Law) would remove the statutory requirement for any Chinese entity or individual first to file applications in China for inventions made in China. The new patent law is of considerable interest to U.S. companies, and its im-

plementation and effects on trade and investment bear further scrutiny.

The Labor Law

In January 2008, China implemented a new Labor Contract Law that aims to combat forced labor, withholding of pay, and other abuses by providing, among other things, for formal contracts and severance pay.⁶⁶ The law formalizes workers' rights concerning overtime hours, pensions, and layoffs. Employers are now required to give open-ended contracts to staff who have worked for 10 years or have completed two fixed-term contracts, and firms must pay fired workers a month's wages for every year they have worked.⁶⁷ The law also regulates overtime, dictating that for every extra hour an employee works, companies need to pay 1.5 times the normal rate on weekdays, double the normal rate on weekends, and triple the normal rate on national holidays.⁶⁸ Many important areas of internationally recognized workers' rights, however, are left unaddressed by the law, including freedom of association and collective bargaining.

The ultimate impact of the law depends on the way in which the government implements and enforces it, two areas where China's practices have been historically weak. While theoretically improving employees' work security and strengthening their rights, the law has sent firms scrambling to adapt or circumvent the law for fear of dramatic increases in business costs. Some companies have begun to urge, bribe, or coerce long-serving employees to take early retirement or voluntary severance and then rehire them on new contracts, thus resetting their length of service.⁶⁹ The most prominent example of this tactic was the move by Huawei, formerly a state-owned enterprise and now a privately owned telecommunications conglomerate based in Shenzhen, to require about 7,000 employees who had been with the company for more than eight years to "voluntarily resign."⁷⁰ In return, the employees received a lump sum of one month's salary for every year of employment, plus one additional month's salary, and were allowed to rejoin the company on a short-term contract.⁷¹ Huawei dropped the plan, however, after the union controlled by the Chinese Communist Party, the All-China Federation of Trade Unions (ACFTU), said such practices ran counter to Beijing's goal of forging a "harmonious society."⁷² The ACFTU is China's only union; independent unions are illegal.

Whether the costs of doing business in China will rise enough, as a consequence of the law, to drive away foreign business en masse remains to be seen, though some anecdotal evidence presented by the Federation of Hong Kong Industries suggests that while some companies are scaling back or shutting down their Chinese operations, others are moving to less-developed parts of China that offer tax breaks and other incentives in support of China's western development initiative.⁷³ The companies' calculus may be significantly altered, however, as a result of ACFTU demands that all companies allow "unions" to form by a September 30, 2008, deadline.⁷⁴

New Currency Rules

China's undervalued currency and massive trade surpluses have produced nearly \$2 trillion in foreign exchange reserves, \$200 billion of which has been transferred to the China Investment Corporation, China's sovereign wealth fund (discussed in detail in chap. 1, sec. 2). Many overseas investors, attracted to the Chinese bonds by the expectation that the RMB will continue to appreciate, have made further investments in China, creating a self-sustaining speculation.

To slow down the growth in its hard currency reserves and curtail speculation, Beijing removed the requirement in August 2008 that Chinese companies exchange all their foreign currency in the local banking system.⁷⁵ This implies that the government will allow some of the foreign exchange the companies have received to leave China as portfolio investments abroad—a marked change of economic strategy. The implementation and impact of this change bear further examination.

Allowing companies to invest some of their foreign exchange earnings abroad may reduce pressure on the RMB to appreciate, because foreign currency inflows may moderate, and the government may not have to sterilize foreign currency inflows. The new rules also will simplify approvals for Chinese companies seeking to invest overseas, according to SAFE.⁷⁶ In addition, the government will gain more control over hot money inflows disguised as export earnings by allowing authorities to check invoices to ferret out speculative investments. SAFE will check banks' operations to make sure they abide by the new foreign exchange management rules.⁷⁷ Authorities also will be allowed to expand reporting requirements for financial institutions, which may enhance monitoring of illegal capital inflows.⁷⁸

The WTO Cases

Prodded by the United States and other WTO members since it acceded to the WTO, China has taken many steps to reform its economy to meet its WTO obligations. It has implemented a broad set of commitments that required it to reduce tariffs, eliminate nontariff barriers, provide equal treatment to domestic and foreign-invested companies, improve market access for imported goods and services, increase transparency, and protect IPR.⁷⁹ Implementation of many of these requirements has been uneven.

At the root of the problem is China's continued pursuit of industrial policies that rely on excessive Chinese government intervention in the market through an array of trade-distorting measures.⁸⁰ These actions demonstrate that China has not yet fully embraced key WTO principles of market access, nondiscrimination, and transparency. Differences in views and approaches between China's central government and China's provincial and local governments also have continued to frustrate economic reforms, while China's difficulties in generating a commitment to the rule of law have exacerbated this situation.⁸¹

China's central government continues to implement industrial policies that protect a number of uncompetitive or emerging sectors of the economy from foreign competition. In many sectors, import

barriers, opaque and inconsistently applied legal provisions, and limitations on foreign direct investment often combine to make it difficult for foreign firms to operate in China.⁸² In addition, some ministries, agencies, and government-sponsored trade associations have renewed efforts to erect technical barriers to trade. Meanwhile, many provincial governments at times have strongly resisted reforms that would eliminate sheltered markets for local enterprises or reduce jobs and revenues in their jurisdictions.⁸³

Lack of effective enforcement of intellectual property rules acts as a pervasive trade and investment barrier. Foreign creators of intellectual property lose hundreds of millions of dollars in revenue as a result of counterfeiting, making it impossible for many of them to operate profitably in China. Software provides an excellent case study. Compounding the losses of software companies resulting from lost sales, other foreign firms in entirely different industries also suffer as a result of pirated software. Chinese companies using pirated software spend far less than competitors that must purchase software to design and run industrial machinery, perform complex accounting, or accomplish myriad other functions.

The United States has cited China's restrictions on foreign financial information services and foreign financial services suppliers in bringing a complaint before the WTO. In March 2008, the United States claimed that China violates global trade rules by giving the Xinhua News Agency the right to issue annual licenses for overseas media organizations, barring them from directly distributing information and soliciting subscribers in China. Xinhua was given sole power in September 2006 to regulate news services that distribute financial information in China such as Bloomberg and Reuters—while it also is a direct competitor of such services.⁸⁴ Furthermore, in order to renew their licenses, China requires foreign financial information suppliers to provide to the Foreign Information Administration Center, a regulatory body within the Xinhua framework, detailed and confidential information concerning their financial information services, their customers, and their foreign suppliers.⁸⁵ This places the foreign firms in a position of extreme competitive disadvantage with Xinhua, which already enjoys a substantial home court advantage.

Creation of such *de jure* bottlenecks for financial information allows China further to tighten media controls in a nation where access to information already is severely curtailed by state censorship. Under the Chinese rules, media agencies can sell news and data to subscribers only via agents designated by Xinhua, which has the right to select information released by foreign organizations and to delete any materials that are deemed to undermine China's "social stability," endanger national security, or disrupt the country's economic order. In its WTO case, the United States, later joined by the European Union (EU) and Canada, claims that such measures breach Chinese pledges on national treatment and market access. The rules also break commitments China made when joining the WTO not to scale back existing rights for companies and to provide regulatory independence.⁸⁶ (See chap. 5 for a more detailed look at China's restriction of information services.)

In July 2008, China lost its first WTO case after a dispute panel ruled against Beijing's import tariffs for car parts. The case,

brought in 2006 by the United States, the European Union, and Canada, alleged that China was using a combination of import duties and tax incentives to give an unfair advantage to domestic companies. China compelled foreign automakers to buy a quota of their components from local suppliers or pay more than double the standard import duty on parts if they made up more than half the finished vehicle. The import duty surcharge was equivalent to the tariff on imports of complete cars, typically 25 percent, compared with the usual 10 percent for car parts.⁸⁷ China appealed the WTO ruling in September 2008, and at the time this Report was completed, a final decision has not been made on the appeal.⁸⁸

China's auto market is booming and is the world's second largest.⁸⁹ While joint ventures with big U.S. and European companies initially dominated the market, Chinese manufacturers have increased both domestic and export sales. As a protectionist device, the auto parts tariffs discouraged imports, built up China's domestic car manufacturing industry, and forced foreign parts manufacturers to relocate manufacturing to China. (See chap. 1, sec. 3, for more information on China's auto industry.)

Less than a month after losing the auto parts case, China introduced a new tax that will achieve much of what it originally wanted, albeit by a different route. Taking effect in September 2008, the new tax applies to gas-guzzling cars and ostensibly is intended to reduce fuel consumption and fight pollution. Both are admirable goals, but it surely is not a coincidence that most such cars are foreign made. The government says the new tax will encourage a shift to more fuel-efficient cars. It also will help domestic automakers, as they tend to make smaller cars, while large-engine trucks and increasingly popular sport utility vehicles are manufactured by foreign companies.⁹⁰

In September 2008, China brought a WTO case against the United States regarding the U.S.' calculations of antidumping and countervailing duties in a number of trade remedy cases involving circular welded steel pipe, light-walled rectangular pipes, off-road tires, and laminated woven sacks.⁹¹ China challenged several aspects of the U.S. countervailing duty methodology, including whether its state-owned enterprises meet the definition of "public bodies," and argued that the United States failed to prove its case.⁹² The U.S. Trade Representative responded that it is "fully confident in [U.S.] trade remedy laws and will vigorously defend the WTO consistency of these laws."⁹³

U.S. trade officials are considering challenging China on two additional aspects of the U.S.-China trade relationship—one related to farm taxes and subsidies and the other to steel. In the former case, in an August 2008 letter to the WTO Committee on Agriculture, the United States challenged China to justify the legality of its tax, subsidy, and export rules for farm products such as pork and wheat—specifically article 86 of China's Enterprise Income Tax Law that "wholly exempts agricultural producers from the payment of enterprise income taxes with regard to the 'rearing of livestock,' including pork."⁹⁴ The United States also alleges that China exempts many agricultural products from the 13 percent value-added tax (VAT) normally applicable to agricultural products. In particular, "sales of agricultural commodities produced and sold by

farmers in China such as wheat, cotton, and corn, [and] sales of agricultural inputs produced and sold in China such as seed, pesticides, herbicides, agricultural machinery, and certain fertilizers,” are exempted from the VAT.⁹⁵ However, when these same products are imported, “they are assessed the VAT at the rate of 13 percent,” which violates nondiscrimination principles.⁹⁶

A WTO dispute settlement panel has issued an interim ruling in October 2008 on another case brought against China by the United States in 2007 (with Canada, the European Union, Japan, and Mexico joining the consultations), which challenged China’s enforcement of intellectual property rights. The panel ruled against the United States on a key point of what constitutes “commercial scale” piracy but ruled against China’s enforcement regime on two other points.⁹⁷ The panel ruled that the United States failed to provide substantial evidence to show that the kinds of infringing activities in China exempt from criminal prosecution actually qualify as “commercial scale” piracy.⁹⁸ On two other points of contention the panel found that China violates WTO rules by auctioning off counterfeit goods the government has intercepted after removing the infringing trademark and by denying copyright protection to works that have not been approved by Chinese censors, which basically has made it legal for counterfeiters to distribute pirated copies of such works.⁹⁹ This decision is not final, as both parties to a dispute may file comments with the dispute settlement panel after reviewing the interim report.

In September 2008, the *Financial Times* reported that the United States is close to filing a WTO case against China challenging export restrictions on raw materials used in steel making and other industries.¹⁰⁰ According to the news report, the United States is expected to argue that Chinese export quotas and taxes on raw materials used in steel production “artificially deflate domestic prices and inflate global prices,” granting domestic producers an unfair advantage over the U.S. ones.¹⁰¹ The United States has questioned China’s actions in this area in the past as WTO violations. As with the farm tax and subsidy case, the United States has not yet requested formal consultations, the first step in the WTO dispute settlement process.

There is another pending WTO case against China filed by the United States. The United States has challenged China’s alleged constrained market access for U.S. films, books, journals, music, and other media (the European Union has joined consultations). As of the date this Report was completed, the director general has composed the panel in this case, but no report has been issued.

Breakdown of the Doha Trade Talks

As the WTO’s Doha Round of trade talks, now in its seventh year, broke down in late July, China emerged as a central player in global economic decision making. Since joining the WTO in 2001, China has kept a low profile, generally siding with developing countries. It had, however, been critical of the United States for invoking safeguard quotas to prevent an increase in imports of Chinese textiles that threatened American manufacturers. But in the later stages of the Doha Round, China allied itself with India to demand last-minute concessions on safeguard rules for agriculture in

sectoral talks on farm trade. India and China insisted that developing countries be allowed to impose safeguard tariffs on food imports to protect farmers in poor countries, since they have little access to credit, fertilizers, advanced crop strains, clean water, and mechanized farming methods and can be harmed by international trade.¹⁰² The United States and other agricultural exporters refused to accept the Indian and Chinese position. As a result, the talks collapsed amid charges that China had reneged on previous commitments to support U.S. and European proposals on the key issue of agricultural trade. U.S. trade negotiator David Shark said that India and China threw the Doha Round “into the gravest jeopardy of its [...] life,” but China’s trade negotiator, Chen Deming, dismissed the accusation as “groundless.”¹⁰³

China’s action comes at a time of rising food prices and concerns in developing nations over food security. Ensuring that its farmers can produce most of China’s food has become an increasingly important focus for the Chinese government. Speaking at the July 2008 meeting in Japan of the leaders of the G–8 nations, Chinese President Hu Jintao said that “China attaches great importance to agriculture and especially the food issue, [...] and pursues a food-security policy of relying on domestic supply, ensuring basic self-sufficiency, and striking a balance through appropriate import and export.”¹⁰⁴

China “had never played an active role in the Doha talks, but it is now aggressively challenging the global trading system,” said C. Fred Bergsten, director of the Peterson Institute for International Economics.¹⁰⁵ China surprised rich nation negotiators by insisting that poorer nations retain the right to raise tariffs on imports of farm goods in order to protect subsistence farmers in the poorer nations from devastating increases in imports. This ability is a staple of trade law, but European and U.S. negotiators said that China was setting the trigger price for such relief far too low and the potential tariff rates too high. China’s insistence on protecting subsistence farmers from allegedly ruinous competition upset a delicate compromise that seemed to be leading the unwieldy talks to a final conclusion: In return for greater access to developing nations’ markets for their agricultural exports, the U.S. and European exporters would agree to limit the huge government subsidies to their farmers that can make imported food cheaper in the poor nations of Africa, Asia, and South America than domestically grown crops such as rice, corn, and cotton.

Consequences of the Global Market Turmoil

Grappling with rising labor costs, volatile fuel prices, and the strengthening Chinese currency, Chinese economic markets are not immune from the woes of the current global economic slowdown, although the effects have been mild compared to what has occurred in the United States and other developed nations. China’s financial system remains relatively closed—with inflows and outflows of capital strictly controlled, the banking sector largely state owned, and nearly \$2 trillion of foreign exchange reserves—and thus insulated from the credit crunch. China’s global exports expanded by 22 percent in the first half of 2008.¹⁰⁶ Though this is down slightly from a 28 percent growth rate in the same period of 2007, next year

China is expected to overtake the United States as the world's largest producer of manufactured goods, four years earlier than forecast as recently as last year, according to Global Insight, an economics consultancy.¹⁰⁷

Despite an enviable growth rate, China's leadership is concerned that higher costs will bring about a severe slowdown in consumption of Chinese goods abroad. It is expected to take steps intended to prop up the rate of the nation's economic expansion. Already in August 2008, Beijing trimmed export taxes imposed on garment manufacturers, and the central bank has eased limits on lending by Chinese banks to make it easier to invest in that sector. While inflation was a worry earlier this year, peaking at 8.7 percent in February, consumer prices grew by a relatively modest 4.6 percent in September 2008.¹⁰⁸ With inflation appearing to ease, Beijing is likely to step up government spending again to boost growth.¹⁰⁹

An increase in the textile export tax rebate in August 2008, for example, and an additional increase in October 2008, represent a complete reversal of earlier, long-term initiatives to shift China away from low-end manufacturing and move any low-scale labor from the coast to the interior. To slow the nation's ballooning growth, the government had reduced the rebate rates of the value-added tax for more than 2,800 products in 2007, including hundreds of textiles and garments.¹¹⁰

However, the textile sector is a huge employer, with low margins that have been worn away by currency appreciation and rising input costs, and it now has won additional tax breaks.¹¹¹ In contradiction to its own policy of moving away from low-cost manufacturing, China actually has raised the tax rebate on a range of textiles to 14 percent from 11 percent, a shot in the arm for exporters struggling with a stronger RMB, weakening demand, and rising costs of inputs and labor.¹¹²

In October 2008, tax rebates also were increased for other exporting sectors, including toys (increased to 14 percent), plastics (increased to 9 percent), furniture (increased to between 11 percent and 13 percent), ceramics (increased to 11 percent), and drugs to treat AIDS. Export rebates for some other medicines and electrical goods such as sewing machines, electric fans, and electronic parts for machine tools will be raised to between 9 and 13 percent.¹¹³

In September 2008, after years of tightening monetary policy to fight inflation, China reversed course and cut interest rates for the first time in six years and then cut them again less than a month later in tandem with the Federal Reserve, the European Central Bank, and other central banks.¹¹⁴ It also lowered the reserve ratios for most smaller banks as export growth slowed, real estate prices weakened, and China's stock market fell more than 60 percent since January 2008.¹¹⁵ The People's Bank of China said that the goal of the policy shift was to "solve prominent problems in the current economic operation [...] and ensure a steady, rapid and sustained development."¹¹⁶ However, the People's Bank of China did not lower the reserve requirements for the nation's six largest banks—Industrial and Commercial Bank of China, the Agricultural Bank of China, the Bank of China, the China Construction Bank, the Bank of Communications, and the Postal Savings Bank—that must hold large sums of reserves so that the central bank can con-

tinue buying foreign exchange, thus limiting the appreciation of the RMB against the dollar.¹¹⁷ It appears, therefore, that China's government wants to continue to rely on exports to grow its economy.

Conclusions

- China's trade surplus with the United States remains large, despite the global economic slowdown. The U.S. trade deficit in goods with China through August 2008 was \$167.7 billion, which represents an increase of 2.4 percent over the same period in 2007. Since China joined the WTO in 2001, the United States has accumulated a \$1.16 trillion goods deficit with China and, as a result of the persistent trade imbalance, by August 2008 China had accumulated nearly \$2 trillion in foreign currency reserves. China's trade relationship with the United States continues to be severely unbalanced.
- The U.S. current account deficit causes considerable anxiety among both economists and foreign investors who worry that future taxpayers will find it increasingly difficult to meet both principal and interest payments on such a large debt. The total debt burden already is having a significant impact on economic growth, which will only increase in severity.
- China's currency has strengthened against the U.S. dollar by more than 18.5 percent since the government announced in July 2005 it was transitioning from a hard peg to the dollar to a "managed float." Starting in July 2008, however, the rate of the RMB's appreciation has slowed, and there are some indications this may be due to the Chinese government's fear that a strong RMB will damage China's exports. China's RMB remains significantly undervalued.
- China continues to violate its WTO commitments to avoid trade-distorting measures. Among the trade-related situations in China that are counter to those commitments are restricted market access for foreign financial news services, books, films and other media; weak intellectual property protection; sustained use of domestic and export subsidies; lack of transparency in regulatory processes; continued emphasis on implementing policies that protect and promote domestic industries to the disadvantage of foreign competition; import barriers and export preferences; and limitations on foreign investment or ownership in certain sectors of the economy.
- Over the past year, China has adopted a battery of new laws and policies that may restrict foreign access to China's markets and protect and assist domestic producers. These measures include new antimonopoly and patent laws and increased tax rebates to textile manufacturers. The full impact of these laws is not yet known, particularly whether they will help or hinder fair trade and investment.
- In 2008, China emerged as a stronger power within the WTO as it took a more assertive role in the Doha Round of multilateral trade talks, working with India and other less-developed nations to insist on protection for subsistence farmers.

SECTION 2: CHINA'S CAPITAL INVESTMENT VEHICLES AND IMPLICATIONS FOR THE U.S. ECONOMY AND NATIONAL SECURITY

"The Commission shall investigate and report exclusively on—
...

"UNITED STATES CAPITAL MARKETS—The extent of access to and use of United States capital markets by the People's Republic of China, including whether or not existing disclosure and transparency rules are adequate to identify People's Republic of China companies engaged in harmful activities. ..."

Introduction

The People's Republic of China (PRC) formally established the China Investment Corporation (CIC) on September 29, 2007, to manage and diversify its foreign exchange reserves beyond its traditional investments in U.S. government dollar-denominated bonds. With an initial loan of \$200 billion from China's central bank, the People's Bank of China, CIC instantly became one of the largest sovereign wealth funds in the world.*¹¹⁸ Most of the world's 40 other sovereign wealth funds have existed without much controversy for up to 50 years, but China's entry into the sovereign wealth fund market is remarkable for several reasons. For one, China appears far less likely than other nations to manage its sovereign wealth funds without regard to the political influence that it can gain by offering such sizable investments. With an estimated 40 percent of its domestic economy still under government ownership and control, China has long mixed economic and political goals and is likely to do so with its international investments, despite protestations to the contrary.¹¹⁹

Many experts share a concern about the phenomenal growth of other sovereign wealth fund assets and state capitalism generally. The Commission's charter limits its purview to specific matters related to the U.S.-China economic and security relationship; hence this chapter on China's sovereign wealth fund necessarily focuses on CIC and other Chinese state-owned entities. Our Report should be understood in this context. In light of the current crisis in credit markets and on Wall Street, the Commission also recognizes the

* According to the U.S. Department of the Treasury, a sovereign wealth fund is a "government investment vehicle which is funded by foreign exchange assets, and which manages those assets separately from the official reserves of the monetary authorities." U.S. Department of the Treasury, *Semiannual Report on International Economic and Exchange Rate Policies* (Washington, DC: June 2007), appendix 3, p. 1. www.treas.gov/offices/international-affairs/economic-exchange-rates/pdf/2007_Appendix-3.pdf.

difference between temporary, though massive, intervention undertaken by the U.S. government as a part of a rescue plan for the floundering economy, and the sustained control of China's economy by China's government.

China's sovereign wealth fund portfolio also is unusual because it is backed by the world's largest pool of foreign currency holdings—nearly \$2 trillion and growing as much as \$500 billion a year.*¹²⁰ This vast sum is managed by an arm of the central bank, the State Administration for Foreign Exchange (SAFE), that quietly has been making its own investments, in apparent competition with China's official sovereign wealth fund. In fact, both SAFE and CIC are just two parts of a complex web of state-owned banks, state-owned businesses, and government-run pension funds, all of which draw their money—and receive their directions—from the central government and which promote a state-led development agenda.

China's methods of raising such a large amount of foreign exchange also set its sovereign wealth fund apart from those of other nations. Rather than being derived from sales of commodities such as oil or minerals, the capital in China's fund is the result of its financial controls and its trade surplus in manufactured goods. CIC is a “by-product of efforts to manage exchange reserves more aggressively” and was established because the government's total holdings of foreign exchange “exceed what conceivably could be needed for prudent reasons,” according to Brad Setser, a Council on Foreign Relations economist who testified at a February 2008 Commission hearing on CIC.¹²¹ Ultimately, the enormous pool of money available for investment means CIC is likely to have “a major impact on the composition of global capital flows ... and could have a particularly large impact on the United States.”¹²²

Controversy has continued to surround CIC and China's foreign reserves despite China's official insistence that it intends nothing more than to diversify its portfolio with sound investments devoid of political or strategic considerations. In early 2008, the *Financial Times* reported that SAFE, the official administrator of China's foreign exchange reserves, appeared to have surreptitiously made investments through a Hong Kong company that is its subsidiary.¹²³ In September 2008, the *Financial Times* revealed that SAFE money was used as part of an incentive package to persuade Costa Rica to shift its diplomatic recognition from Taiwan to China last year (see the portion of this section on SAFE for further discussion).¹²⁴ SAFE agreed to purchase Costa Rican government bonds at a low rate of interest despite Beijing's promises that it would not use sovereign wealth fund investments to further its political goals. It remains unclear whether SAFE created its own sovereign wealth fund to vie with CIC in a secretive, high-stakes bureaucratic squabble or whether the SAFE fund represents an effort to escape public notice while offering CIC up to scrutiny.

The participation of a large, nonmarket economy raises a broader issue: whether China's investment is formally transacted by CIC,

*The People's Bank of China, the central bank, has reported that China's foreign exchange reserves grew from \$1.0685 trillion in 2006 to \$1.528 trillion in 2007. By September 2008, the reserves grew to \$1.91 trillion and are expected to reach nearly \$2 trillion by the end of 2008. www.pbc.gov.cn/english/.

SAFE, government-owned banks, or government-controlled industry, purchases by Chinese government-controlled entities ultimately may result in foreign authoritarian government ownership and control of important sectors of the world's free market economies. Chinese state-owned enterprises (SOEs) and state-owned banks have an historically large role in the Chinese economy, so the expansion of Chinese firms abroad likely will mean the expansion of Chinese state-owned firms abroad.¹²⁵ The "dramatic increase in the role of governments in the ownership and management of international assets" is "disquieting [since] it calls into question our most basic assumptions about the structure and functioning of economies and the international financial system," Edwin M. Truman, a former Clinton Administration Treasury Department official now at the Peterson Institute for International Economics, told the Senate Committee on Banking, Housing, and Urban Affairs in November 2007.¹²⁶ "In the United States, we favor a limited role for government in our economic and financial systems, [...] and we presume that most cross-border trade and financial transactions will involve the private sector on both ends of the transaction," Dr. Truman said.¹²⁷

Growth of its foreign exchange reserves has made China the largest foreign investor in U.S. government securities; its holdings of this type totaled approximately \$967 billion as of July 2008, according to officially disclosed U.S. figures.¹²⁸ So long as China confined its investment to bonds, few in the United States worried about China's potential to exert direct control over U.S. assets. Further, China's consistent willingness to buy newly issued Treasuries at auction allowed the U.S. government to finance its budget deficit at a lower cost than otherwise would have been the case. Judging from the very low returns China received in 2007, its purchase of U.S. Treasuries was motivated by a desire to manage its exchange rate and to boost its exports rather than to seek a high return.¹²⁹

Recently, though, China's government has made a strategic decision to encourage outward investment by Chinese firms and to reorient the composition of the portfolio held by China's central government toward equities, raising new concerns. Chinese officials note that it makes little financial sense for China to invest the dollars it receives from foreign trade exclusively in safe but very low-yielding U.S. government bonds. However, as Dr. Setser testified before the Commission, China's desire to diversify its portfolio "runs squarely into the United States' historic aversion to government ownership of private firms" and may have engendered new misgivings about China's involvement in the international equity markets.¹³⁰ Specific proposed investments by CIC could raise national security concerns due to extensive involvement of the central government, which has a history of making strategic acquisitions to enable it to obtain advanced U.S. technology in such areas as automobiles, telecommunications, and aerospace. (See chap. 1, sec. 3, for more discussion on this issue.)

The Administrative Structure and Policies of the China Investment Corporation

Claims by Chinese officials that the establishment of CIC is intended to create an investment vehicle for strictly economic purposes are contradicted by many of the facts. While most other sovereign wealth funds have just one or two objectives, such as support of a country's pension system or reinvestment of oil revenues to ensure a sustained stream of income even after oil wells run dry (as is the case for Qatar's, Kuwait's, and Norway's funds), CIC's mandate reads like a composite of the mandates of several separate agencies with goals focused on monetary policy, foreign policy, bank regulatory policy, and industrial policy.¹³¹ About a third of CIC's \$200 billion has been dedicated so far to recapitalizing some of China's largest banks that have flirted with insolvency because of mismanagement and corruption. Bailing out poorly run banks is not likely to create high returns on CIC's investments.

In addition, CIC's mandate tasks it to support the outward investment of Chinese firms in emerging markets and also to manage China's external investments in an equity-heavy portfolio.¹³² Yet CIC also must function as part of China's capital control system whose purpose is to maintain a low value of the renminbi (RMB) relative to the dollar. This contradicts CIC's publicly stated goal of maximizing profits, because by investing in dollar assets, CIC is almost guaranteed to lose money. China is by no means unaware of its dollar-denominated predicament. SAFE has been making overtures to European private equity firms as part of a strategy to diversify its dollar holdings, but the extent to which it can manage that without triggering RMB appreciation or spooking the currency markets is uncertain.¹³³

CIC's Capitalization and Working Capital

CIC is set apart from many older sovereign wealth funds, such as Norway's or those of the Gulf states, because it is "financed by issuance of debt, not from a fiscal surplus" derived from sales of commodities such as oil.¹³⁴ The working capital for CIC is backed by China's nearly \$2 trillion in foreign exchange reserves. Until recently, most of those assets have been held as central bank reserves and invested conservatively in U.S. government securities. China's reserve growth has accelerated in recent years, adding at least \$500 billion a year.¹³⁵ Currently, CIC manages just 10 percent of China's foreign exchange reserves, with the vast majority of foreign exchange remaining within the control of SAFE and the People's Bank of China. But that could change.

Under a plan approved by the Standing Committee of China's National People's Congress in June 2007, the Ministry of Finance issued 1.55 trillion RMB (\$200 billion) in special Chinese government bonds to provide CIC with capital to purchase foreign exchange from the People's Bank of China.¹³⁶ Under the arrangement, CIC is to be responsible for paying the interest on the bonds, about 5 percent, at an estimated cost of \$40 million per day.¹³⁷ CIC, after purchasing China's former state asset manager, Central Huijin Investment Company (Central Huijin), recapitalizing domestic banks, and making other domestic investments, reportedly had

around \$90 billion available for future investments as of April 2008. This is approximately equal to the cumulative total amount of China's outward direct investment as of the end of 2007.*¹³⁸

Objectives and Investment Strategy

Since opening its economy to the world, China has maintained stringent controls over capital inflows and outflows and over its foreign exchange, the effect of which is to maintain low currency value that enhances China's trade competitiveness. Trade, foreign direct investment, and portfolio investment flows into China create a continuing stream of foreign exchange, mostly dollars. Conventional economics suggests that such an abundance of dollars is likely to push the value of the dollar down relative to the RMB, assuming a free market in currencies. Governments can use a variety of economic tools to influence the value of their currencies, such as raising or lowering short-term interest rates. China uses a different tool—controls on the dollars and other foreign exchange coming into the country. It is an expensive tool for China, and it provides more evidence that China's investment policies not only are aimed at maximizing financial returns but also are designed to satisfy broader political and economic ends, including obtaining advanced technology; gaining access to natural resources; and isolating Taiwan, which China regards as a renegade province.

Despite recent relaxation of rules for holders of foreign exchange, businessmen earning dollars and euros for exports still are required to exchange most of them for RMB in government-owned banks.† These dollars or euros then are spent by the banks to purchase foreign debt, much of it U.S. Treasury bills and other federal agency debt. But that leaves a lot of new RMB in circulation in China, a situation that would be expected to lead to inflation. Therefore, to absorb the excess RMB generated by the dollar swap, China offers government bonds with a relatively high rate of return to make them attractive to its citizens. The Chinese government also requires its banks to keep large amounts of cash on hand. This process is called “sterilization” and is intended to remove excess currency from circulation before it causes inflation. (See the detailed discussion of currency sterilization in chap. 1, sec. 1.)

However, because interest rates on Chinese government bonds are higher than the real interest rates the banks are receiving from their holdings of dollar-denominated bonds, the dollar reserves held by SAFE and the People's Bank of China are losing money. So, too, are the dollar investments made by CIC. China's accumulation of U.S. debt in 2007 was not very profitable, given the appreciation of the RMB against the U.S. dollar. The yield on 10-year U.S. Treasury bills fluctuated between 4.5 percent and 5.0 percent throughout 2007 and has been below 4.0 percent in 2008.¹³⁹ However, in 2007 the RMB appreciated nearly 7 percent relative to the

* According to the United Nations Conference on Trade and Investment (UNCTAD), China's stock of outward foreign direct investment was \$95.8 billion. UNCTAD, *World Investment Report 2008*. www.unctad.org/wir, or www.unctad.org/fdistatistics.

† To slow down the growth in its hard currency reserves and curtail inflows of speculative “hot money,” the Chinese government removed the requirement in August 2008 that Chinese companies exchange all their foreign currency in the local banking system. Chinese businessmen can keep some foreign exchange abroad. See chapter 1, section 1, for more information.

U.S. dollar and has appreciated at about the same rate so far in 2008.¹⁴⁰ Thus, the real rate of return on U.S. Treasury bills held by China has been negative in 2007 and 2008.

CIC offers a new avenue for the government to invest accumulated foreign exchange holdings and potentially to earn a positive rate of return on its investments. In fact, CIC is responsible for paying the interest on the Chinese bonds issued to transfer the foreign exchange from the People's Bank of China to CIC. That means CIC must earn a real rate of return of slightly more than 5 percent (see the part of this section on capitalization for more detail). Lou Jiwei, CIC's chairman, has likened the fund to a Beijing taxi driver who knows he must make 300 RMB every day to cover his expenses. In CIC's case, it has to earn returns of about 300 million RMB (\$40 million) each day to cover fully its debt service costs.¹⁴¹ By this measure, CIC is not profitable.

One reason that CIC is losing money is the government's requirement that the fund take on an "exceptional level of exchange rate risk," Dr. Setser testified to the Commission.¹⁴² The market currently expects the RMB to appreciate by about 8 percent a year against the dollar.¹⁴³ The RMB bonds issued to finance CIC carry an interest rate around 5 percent. These two facts imply that CIC needs a nominal return of around 13 percent just to break even.¹⁴⁴ The target yield of CIC is important primarily because of the implications for its portfolio mix. Earning higher yields usually means investing in higher-risk investments such as equities and accepting more volatility in the value of the portfolio at any given time.

Prior to the creation of CIC, Chinese officials were making statements indicating that its investment strategy would be to maximize the rate of return on its investments. On the day CIC was created, Deputy General Manager Yang Qingwei said that CIC's "principal purpose is to make profits."¹⁴⁵ About a month after CIC's launch, CIC Chairman Lou Jiwei told a group of financial experts in Beijing that most of CIC's investments would be in publicly traded securities but that it also would make some direct investments.¹⁴⁶ In December 2007, on his first trip abroad as chairman of CIC, Mr. Lou said, "We will adopt a long-term and prudent investment principle and a safe, professional portfolio strategy that adapts to market changes, which will put emphasis on a rational match of returns and risks."¹⁴⁷ On another occasion, Mr. Lou said that CIC was similar to "farmers—we want to farm our land well," suggesting a preference for investing in portfolios with relatively higher anticipated returns. But he also added that "when there is good market opportunity, we can also make some direct investment, such as the Morgan Stanley deal."¹⁴⁸ And more recently, CIC President Gao Xiqing noted that CIC is "looking at clean energy and environmentally-friendly investment."¹⁴⁹

At the same time, China has been talking about the kinds of investments CIC will *not* be making. CIC President Gao said CIC will look at "everything cross-border except casinos, tobacco companies, or machine-gun companies."¹⁵⁰ CIC Chairman Lou has indicated that CIC will not invest in infrastructure.¹⁵¹ Chinese officials reportedly told German Chancellor Angela Merkel during her visit to China in August 2007 that CIC "had no intention of buying strategic stakes in big western companies."¹⁵² China's Vice Minister of

Finance Li Yong dismissed “rumors that China [will] try to buy out European and American companies in large numbers.”¹⁵³ Vice Minister Li also has stated that CIC will not buy into overseas airlines, telecommunications, or oil companies.¹⁵⁴ An unnamed official at CIC indicated that the sovereign wealth fund also will not make investments in foreign technology companies as a means of obtaining advanced technology, pointing out “That’s political, and we don’t do that.”¹⁵⁵

**Sectors and Investment Activities
CIC Has Stated it Will Avoid**

- Tobacco companies
- Casinos
- Machine gun companies
- Controlling stakes in western companies
- Overseas airlines
- Telecommunications firms
- Oil companies
- Foreign technology companies as a means of obtaining advanced technology

Source: Statements by various CIC and Chinese officials in the press.

When Commissioners met with Gao Xiqing, CIC’s president, during the Commission’s March–April 2008 fact-finding trip to China, Mr. Gao stated that CIC is operating on a commercial basis and has to take responsibility for its decisions. Mr. Gao acknowledged that long-term financial interests sometimes have a political component, but he added that his interaction with government officials is mainly through informal channels. In response to concerns about CIC taking controlling stakes in its investments, Mr. Gao stated that CIC does not want board seats and has instructions to take passive roles in its investments. China, he underscored, is moving toward a free market, but in the interim, state enterprises will play a role in foreign trade and investment. In Mr. Gao’s view, the more the United States engages with China, the more it promotes reform.

Despite the reassurances provided by CIC, there is scant evidence that China has an investment strategy that is free from political influences. “Powerful forces within the state bureaucracy ... [have their] own ideas on how the money can best be spent,” notes the *Financial Times*.¹⁵⁶ At least some Chinese media outlets are discussing the broader geopolitical significance of sovereign wealth fund investment abroad and providing a message quite different from the statements made in public by CIC officials. An example is the following excerpt from a government-run Chinese newspaper article during the period just prior to the formal creation of CIC:

... [A]uthoritative sources ... reveal that—although the leading cadres of the foreign exchange company preparatory committee have regarded the primary responsibility of [the company] as investing in financial products of the international financial market, and to make shareholding investments in financial institutions—the National

*Development Committee and other cognizant organs have always hoped that the investments of the foreign exchange company will give expression to the national will, and, other than investments in stocks and products of the financial system, that it should also make some strategic purchases, paying attention to some of the domestic 'Going Outward' enterprises, etc.*¹⁵⁷

This statement indicates that some Chinese officials are interested in seeing Chinese sovereign wealth fund investments achieve goals other than simply turning a profit. For example, when Chinese appliance maker Haier announced in June 2008 that it was considering a bid for General Electric's appliance business, executives at CIC said that one of its "mandates" is to help finance the foreign investments of Chinese companies.¹⁵⁸ The China Development Bank and other banks can be tapped to help finance such a bid and even take a slice of equity in any deal.¹⁵⁹ In another case, Aluminum Corporation of China (Chinalco) financed its stake in Australian mining giant Rio Tinto by borrowing from the China Development Bank, which recently was recapitalized with \$20 billion from CIC. CIC, in turn, received a large equity stake in the China Development Bank.¹⁶⁰

CIC's Governance

Technically, CIC is organized as a separate entity, owned by the PRC government and reporting directly to China's State Council. This gives it a political standing equivalent to that of a ministry, and a direct relationship with the State Council's leader, Premier Wen Jiabao.¹⁶¹ CIC has a board of directors with 11 members, including three executive directors, five nonexecutive directors, two independent directors, and one director representing the employees. None of the members serves on China's State Council; however, all board members have strong ties with the government and the Chinese Communist Party.

CIC Board Chairman Lou, formerly deputy finance minister and State Council deputy secretary general, has been recently appointed as the chairman of CIC subsidiary Central Huijin, further strengthening the companies' merger.¹⁶² CIC President Gao, a U.S.-educated and -trained lawyer, who formerly was vice chairman of the National Council for the Social Security Fund, China's national pension fund, also is CIC's chief investment officer. Other people serving in CIC's top management include the following:

- Zhang Hongli, CIC's executive director and chief operating officer, and former vice minister of finance;
- Zhang Xiaoqiang, vice minister of the National Development and Reform Commission;
- Li Yong, vice minister of finance;
- Fu Ziyang, vice minister of commerce;
- Liu Shiyu, vice governor of the People's Bank of China;
- Hu Xiaolian, head of SAFE and vice governor of the People's Bank of China;
- Liu Zhongli, former minister of finance;

- Wang Chunzheng, former vice minister of the National Development and Reform Commission; and
- Yu Erhui, employee director and human resource director of CIC, and former board director and chairman of the Remuneration Committee of the Bank of China, Ltd.¹⁶³

Many CIC workers came from its absorption of Central Huijin and its wholly owned subsidiary, China Jianyin Investment Company (China Jianyin).¹⁶⁴ CIC also has begun to advertise internationally for fund managers.¹⁶⁵ On the one hand, the mix of board members may represent a political compromise among the leadership of the Chinese Communist Party to obtain broad-based support for the creation of CIC; but on the other, the board's links to China's key economic agencies will provide China's leadership with the necessary mechanisms to exert control over the activities of CIC.¹⁶⁶

During the Commission's March–April 2008 trip to China, CIC President Gao told the Commissioners that there are no regular contacts between CIC and the State Council regarding investment decisions. Major policy decisions are made by the seven-member Executive Committee that is comprised of the chairman, general manager, senior vice president, chairman of the supervisory board, chief investment officer, deputy chief investment officer, and chief risk and finance officer. Other organizational structures include an International Advisory Board whose membership has not been finalized and an investment committee that includes the chairman, general manager, chair of the committee, and mid-/front-line managers making specific investment decisions. However, CIC President Gao noted that board members who previously worked for ministries continue to report to their old offices.

CIC President Gao stressed to the Commission delegation that CIC is seeking passive investments and is subject to less government direction than western countries assume. In marked contrast with other reports, Mr. Gao insisted that the media erred when they reported the Chinese government was directly involved in CIC's investment in Morgan Stanley. According to Mr. Gao, CIC did not even tell the State Council about the deal until hours before it was announced. However, he acknowledged that CIC has to work within the Chinese government system while at the same time applying market principles.

CIC President Gao characterized CIC as being under significant pressure; its every move is closely scrutinized at home and abroad. Its autonomy is constrained, because large investments most likely need approval at the upper level of China's government and/or Communist Party. A decision by the State Council in early 2008 to block the China Development Bank's investment in Citibank is just one indication that China's top leadership is worried that CIC's portfolio is too concentrated in the financial sector or that Chinese investment is beginning to seem like "dumb money" in the eyes of the rest of the world.¹⁶⁷ Nearly two-thirds of CIC's capital is dedicated to domestic investments such as the purchase of Central Huijin or the recapitalization of China's commercial banks. As a result, CIC still can be used as an instrument to advance the central government's domestic economic policies. China, which has lost heavily on its strategic stakes in western banks, seems to have

drawn some fairly conventional lessons. The State Council recently blocked a proposed takeover by China Development Bank of Germany's Dresdner Bank and, at the time this Report was completed, had not approved any large investment in a foreign bank in 2008.¹⁶⁸

The rest of China's government is not necessarily vested in CIC's success. The bureaucratic rivalry between China's Ministry of Finance and the People's Bank of China apparently has spilled over into rivalry between CIC, which is linked to the Ministry of Finance, and SAFE, the People's Bank of China's manager of foreign currency.¹⁶⁹ The government agencies with links to the state firms want CIC to do more to support their overseas investments, "including the outward expansion of China's mining companies."¹⁷⁰ Overtly supporting Chinese state firms, however, would contradict the assurances that CIC is motivated solely by commercial considerations. Not supporting Chinese state firms, though, risks the creation of new bureaucratic rivals.¹⁷¹

China's SAFE as a Shadow Sovereign Wealth Fund

In 2008, a Chinese government agency promised to purchase Costa Rican government bonds in return for Costa Rica's severing of diplomatic ties with Taiwan. That same agency invested \$2.5 billion with TPG Capital, a Texas private equity firm.¹⁷² In addition, it bought approximately \$2 billion in British Petroleum shares and approximately \$2.5 billion in shares of France's oil and gas company, Total S.A.¹⁷³ Late in 2007, it made several small purchases of shares of three Australian banks.¹⁷⁴

This government-owned investor, however, was not CIC, China's official sovereign fund, but a secretive offshoot of SAFE, the official manager of the nearly \$2 trillion of foreign exchange reserves China has amassed. SAFE's investments traditionally have been in low-yielding U.S. Treasuries and other dollar-denominated, fixed-income securities such as Fannie Mae and Freddie Mac bonds and U.S. corporate bonds. But lately, SAFE has taken the bolder action of buying stocks. SAFE's foray into equity investments simply may be part of a coordinated government strategy to help diversify China's foreign exchange holdings while escaping notice. But available evidence points to bureaucratic turf wars as a more likely cause.

The bureaucratic origins of China's official sovereign wealth fund help explain this. CIC emerged from a dispute between the Ministry of Finance and China's central bank, the People's Bank of China. As China's top leaders considered how to divert some of China's growing foreign reserves into higher-yield investments, the People's Bank of China initially objected to the riskier move. But when those objections were overruled, the People's Bank of China argued that it would be a more suitable manager for the new fund than the Ministry of Finance.

Instead, CIC was created and placed under the control of the State Council, out of the bureaucratic reach of either the Finance Ministry or the central bank, but was staffed primarily with personnel tied to the Ministry of Finance. In addition, the People's Bank of China's holdings of shares of China's state-owned banks were sold to the newly created CIC at below-market prices.¹⁷⁵

Both the bank holdings and the relative shares of costs borne by the People's Bank of China and the Ministry of Finance in recapitalizing the state-owned banks long had been a point of contention between the two ministries. In the aftermath of CIC's creation, the new sovereign wealth fund controlled all the People's Bank of China's shares in China's state-owned banks and other investment companies organized under China Jianyin.¹⁷⁶

The Ministry of Finance fared considerably better in this first period of the contest than the People's Bank of China. Nevertheless, SAFE is determined to prove it is the more astute and capable institution and, in particular, that it can obtain the same or better returns than CIC.

SAFE now is competing with CIC for investments and brings some significant advantages to this second phase of the contest. SAFE has far deeper pockets than CIC, which at the moment has only about \$90 billion in remaining cash to invest abroad. SAFE's head sits on CIC's board, with access to sensitive information about its planned investments.

When SAFE's Hong Kong-based subsidiary acquired stakes of less than 1 percent (about \$176 million) each in three Australian banks, the investments went unannounced. However, even after the news was broken by the *Financial Times*, SAFE continued to deny knowledge of the Australian bank investments while privately asking the *Financial Times* not to publish any of the details SAFE was publicly denying.¹⁷⁷ The *Financial Times* nonetheless exposed the deal, and the details were later confirmed by nonofficial Chinese media. According to Thomson Financial, SAFE also has used its Hong Kong subsidiary to buy stakes of less than 1 percent in Barclays, the Royal Bank of Scotland, British Gas, Cadbury, Tesco, Unilever, and others.¹⁷⁸

In the clearest case yet of using its foreign exchange reserves as a tool to advance China's foreign policy goals, in January 2008 SAFE bought \$150 million in U.S. dollar-denominated bonds from the government of Costa Rica as part of an agreement signed the previous year under which the Central American nation cut diplomatic ties with Taiwan (after 63 years) and instead established relations with the People's Republic of China.¹⁷⁹ The agreement explicitly links the foreign policy switch to China's purchase of government bonds and a grant of \$130 million, reading in part that "Once diplomatic relations are established [China] will buy in two equal parts, in January 2008 and January 2009, the sum of US\$300m in Costa Rican bonds [...]"¹⁸⁰

In an exchange of letters from January 2008 between SAFE's deputy administrator and Costa Rica's finance minister, SAFE promised to buy government bonds under the terms of the 2007 agreement but included a clause requiring Costa Rica to take "necessary measures to prevent the disclosure of the financial terms of this operation and of SAFE as a purchaser of these bonds to the public."¹⁸¹ The details came to light only after *La Nación*, Costa Rica's largest newspaper, won a court case, and a judge ordered the government to release the information to the public.¹⁸² Both Taipei and Beijing have used "checkbox diplomacy" in the past, but this is the first confirmed time that China has used its foreign exchange funds as a means of directly applying political pressure. It also

demonstrates the great length to which SAFE is willing to go in order to hide its objectives and investment positions.

It is not yet clear if SAFE will continue to act as a second de facto sovereign wealth fund for China or if the PRC government will decide that SAFE has overstepped its authority and force it to sell its equity holdings. A story in *Caijing*, China's premier economics and business magazine, quoted an anonymous Chinese official as claiming that the State Council had authorized SAFE to invest 5 percent, or about \$50 billion, of China's foreign exchange reserves in non-fixed-income investments.¹⁸³ Whether SAFE has done so is uncertain, but the bureaucratic conflict driving SAFE's actions may have far-reaching consequences for CIC and for the foreign recipients of sovereign wealth. Of these two pools of sovereign wealth, only one, CIC, is under any pressure to disclose its dealings and operations, while SAFE's activities are veiled in secrecy.

CIC's Record on Transparency

CIC has a mixed record on revealing details of its investment timing and strategy. The fund has provided a considerable amount of information about its administration and has quickly announced its investment decisions after they have been made but not the precise details of when and how the investments will be or have been made.¹⁸⁴ This is not wholly unexpected, however, as most fund managers and the International Monetary Fund (IMF), which has drawn up general guidelines for the operation of sovereign wealth funds, agree that premature disclosure can be harmful. Markets already fluctuate in response to rumors of CIC's planned investments, and too much information before the fact could lead to mispricing and volatility. For example, if CIC announces that it will invest a large sum of money in a particular sector, many other investors will try to move immediately to profit from any resulting rise in value.

CIC officials and other leading economic figures in China have been making reassuring statements about the transparency of CIC's operations and management, but often with caveats. For example, on the day CIC was launched, Chairman Lou said, "We will adopt a prudent accounting system, . . . adhere to commercial lines, and improve the transparent [sic] on the condition that company interest will not be jeopardized."¹⁸⁵ CIC's pledge of transparency was reiterated by Vice Minister Li in November 2007 during an international investment forum.¹⁸⁶

In a meeting with Commissioners during the March–April 2008 trip to China, CIC President Gao said that when CIC was founded, Premier Wen established three principles for the organization: be transparent and responsible for shareholders, be responsible to markets, and obey the laws of recipient countries. This, Mr. Gao said, is consistent with draft IMF principles on sovereign wealth funds. CIC, he mentioned, frequently consults with representatives of Norway's sovereign wealth fund, who noted that CIC was on the right path and that criticism would wane once other countries are more familiar with CIC's leadership and operations. In a sentiment he would frequently echo in later statements, Mr. Gao suggested that U.S. officials should be patient with CIC as it evolves relative

to sovereign wealth fund best practices. Other sovereign wealth funds have had many years to improve their operations, while CIC is only six months old, he emphasized. Criticizing CIC's executives, all of whom are proponents of reform, too soon and too hard would be counterproductive. "If you push too hard, it will backfire," he added. Mr. Gao sees no problem if sovereign wealth funds, including CIC, are treated like other large institutional investors. However, there is a big concern in China that CIC is being held to a separate standard.

During an April 2008 interview with CBS correspondent Lesley Stahl on the television show "60 Minutes," CIC President Gao said that it would be CIC's policy "not to control anything," because "we don't want to go in and say, 'OK, I think you should change this person or I think you should change this product line.' That's not our business."¹⁸⁷ Mr. Gao said the reason he agreed to the interview, a first for a high-ranking manager of China's foreign exchange reserves, was to dispel fears that CIC will try to gain control of the market, steal government secrets, or trigger a U.S. economic collapse by withdrawing financing. Such actions would "hurt the company [CIC], hurt China," Mr. Gao explained.¹⁸⁸ He again reiterated CIC's commitment to transparency, saying that, at the time, CIC was only five months old but that it would produce annual reports and would be "like the Norwegian sovereign wealth fund," which is considered a paragon of best practices.¹⁸⁹ However, in his testimony before the Commission, Peter Navarro, a business professor at the University of California-Irvine, argued that China's and Norway's sovereign wealth funds are fundamentally different, because China has a history of using its financial resources to achieve political goals.¹⁹⁰

The degree and speed at which China will make CIC more transparent is uncertain. Speaking at a dinner hosted by the mayor of London in December 2007, CIC Chairman Lou gave a more nuanced view. "We will increase transparency without harming the commercial interests of CIC; That is to say, it will be a gradual process. . . . If we are transparent on everything, the wolves will eat us up," said the chairman.¹⁹¹ Moreover, China does not disclose the pace at which it is transferring additional funds to CIC or the extent to which the state banks have been forced to hold dollars, which obfuscates CIC's endowment and its investment capacity.

Dr. Truman has developed a scale for ranking the world's sovereign wealth funds on structure, governance, accountability and transparency, and behavior. In Dr. Truman's scorecard, CIC's score—29 out of 100—gives it a relatively low ranking compared to Norway (score of 94), South Korea (51), Kuwait (48), and Singapore's Temasek Holdings (45).¹⁹² The funds of Gulf oil-exporting nations, on the other hand, score significantly worse, with scores of 18 for Brunei, 15 for Abu Dhabi, 14 for Dubai, 9 for Qatar, and 9 for the United Arab Emirates.

Investment Vehicles Outside CIC

Chinese government and CIC officials steadfastly have maintained that their only motivation for investing the country's sovereign wealth in the United States or other western countries is to seek profitable returns. Whether such assurances are sincere, re-

cent revelations of the activities of other Chinese government-affiliated investment entities raise questions about the transparency of and motivations for Chinese state-affiliated investments. These entities are not formally designated sovereign wealth funds but they nonetheless manage China's state-controlled financial resources. In early January 2008, articles appearing in the *Financial Times* revealed the existence of at least one investment vehicle still controlled by SAFE. This entity, Safe Investment Company Limited, was involved in an apparent effort to make secret purchases of stock in three Australian banks (see the portion of this section on SAFE).

China's primary state-owned holding company is the CITIC Group, formerly the China International Trust and Investment Company, established in 1979 with the approval of then-PRC President Deng Xiaoping.¹⁹³ Its initial aim was to "[attract and utilize] foreign capital, [introduce] advanced technologies, and [adopt] advanced and scientific international practice in operation and management."¹⁹⁴ The CITIC conglomerate oversees the government's international investments as well as some domestic ones and answers directly to the State Council. CITIC now owns 44 subsidiaries, including China CITIC Bank; CITIC Holdings; CITIC Trust Co.; CITIC Merchant Co., Ltd.; CITIC Securities (China's biggest brokerage); CITIC Pacific; CITIC Capital; CITIC Resources Holdings; and CITIC International Financial Holdings. Its areas of investment include the financial services industry, telecommunications, construction, manufacturing, specialty steel manufacturing, iron ore mining, property development, media, and industries providing other products and services.¹⁹⁵ In November 2007, CITIC Securities announced that it planned to buy about 6 percent of Bear Stearns for about \$1 billion in a deal that would have involved Bear Stearns taking an equity stake in CITIC at a later date. Chinese regulatory approval was delayed, and the deal was abandoned in March 2008 amid Bear Stearns' collapse. JPMorgan Chase agreed to buy Bear Stearns for \$236.2 million, saving CITIC from a huge financial loss and embarrassment.¹⁹⁶

In addition to the PRC central government's sovereign wealth funds, various regional governments have their own investment funds, such as the planned \$2.9 billion (20 billion RMB) Shanghai Financial Industry Investment Fund. Shanghai International Group, an arm of the municipal government, and investment bank China International Capital Corp (CICC), will hold equal stakes of either 40 percent or 50 percent in a company that will manage the fund.¹⁹⁷

According to a report in *Caijing*, "The Shanghai government obtained approval last year from the State Council to launch the fund. If launched, it will be the second RMB-denominated, city-backed fund in China following the Bohai Industrial Investment Fund in the northern Chinese port of Tianjin that has 20 billion RMB (about \$2.9 billion)."¹⁹⁸ The provinces of Shanxi, Guangdong, and Sichuan also have won approval in principle to establish similar funds focused on energy, nuclear power, and high technology, respectively.¹⁹⁹

There also are vehicles created specifically to invest in emerging markets such as the China-Africa Development Fund (CADFund).

CADFund was launched in June 2007 with an initial \$1 billion provided by the China Development Bank; it plans to grow eventually to \$5 billion, the fund's Vice President Hu Zhirong said.²⁰⁰ The fund plans to spend about \$300 million on projects in 2008 and already has invested \$60 million in the first glass factory in Ethiopia, a power station in Ghana, and a chrome plant in Zimbabwe.²⁰¹ According to Mr. Hu, CADFund also is working with several Chinese firms to form a holding company that will manufacture construction materials in all African countries.²⁰²

These multiple investment vehicles are in a special position to rely on the Chinese central government's financing, insight, and strategic planning. Time will tell if they choose to do so, and, if they do, how that will affect their activities.

Activities of China's Investment Funds

Several investments now under CIC's jurisdiction were made before CIC was formally launched and named. In May 2007, China Jianyin, a subsidiary of Central Huijin, purchased a 9.9 percent stake in Blackstone Group nonvoting shares worth \$3 billion.²⁰³ According to Blackstone's Chief Executive Officer and Chairman Stephen A. Schwarzman, the deal was "purely commercial" and did not need U.S. government approval "as the stake is less than 10 percent."²⁰⁴ The deal, moreover, was struck "without any discount or influence, while it barred CIC from selling the stake for four years or making similar investments for a year."²⁰⁵ The investment, now criticized in China for losing some three-quarters of its value following Blackstone's subsequent public listing, made the Chinese acutely aware of the danger of financial loss and the potential for loss of face. This may be reflected in the more cautious approach that has been taken regarding later foreign investments. In October 2008, however, reports emerged that CIC is intending to raise its stake in Blackstone from 9.9 percent to 12.5 percent by buying Blackstone shares in the open market at a significant discount (CIC paid \$29 a share for the original 9.9 percent stake, while the price in mid-October is between \$9 and \$10).²⁰⁶ While the original investment with Blackstone prevents CIC from selling its shares for four years, the new purchase will not have such restrictions.²⁰⁷

In November 2007, Central Huijin announced it intended to purchase a 70.92 percent stake in China Everbright Bank, a Beijing-based joint-equity commercial bank.²⁰⁸ Later the same month, the bank's shareholders agreed to accept 200 billion RMB (\$29 billion) from CIC.²⁰⁹ While China Everbright Bank's shareholders were reaching their decision, the newly formed CIC assumed responsibility for the assets and liabilities of Central Huijin, which previously was owned by the People's Bank of China. The People's Bank of China received about \$67 billion from CIC in compensation for Central Huijin, approximately one-third of CIC's working capital.²¹⁰ As a result, CIC became the parent company for Central Huijin and its subsidiary China Jianyin, plus owner of \$3 billion in Blackstone Group stock that had been purchased by China Jianyin. In addition, CIC indirectly became a major stockholder in China Construction Bank and the Industrial and Commercial Bank

of China by way of the investments of Central Huijin and China Jianyin in those two banks.²¹¹

Also in November 2007, CIC decided to recapitalize two of China's state-owned banks, the Agricultural Bank of China and the China Development Bank.²¹² After its investment in the Agricultural Bank of China, CIC supposedly was to own one-third of the bank, with another third owned by China's Ministry of Finance.²¹³ According to an August 2008 report from *China Business News*, the Agricultural Bank of China's reform proposal has been approved by the State Council, and the bank will receive a \$20 billion injection from Central Huijin.²¹⁴ In December 2007, Central Huijin signed an agreement to invest \$20 billion in the China Development Bank.²¹⁵

Responding to the current global economic turmoil, CIC's Central Huijin unit announced in September 2008 that it will buy stakes in three major Chinese lenders, the Industrial and Commercial Bank of China, the Bank of China, and the China Construction Bank, to fortify their share prices amid the stock market slump.²¹⁶ The state-owned newspaper *Xinhua* reported that the move was aimed to support the steady operation of these major state-owned financial institutions, stabilize their share prices, and ensure "the government's interest in the three lenders."²¹⁷ Through Central Huijin, CIC holds 67.5 percent of the Bank of China, 59.1 percent of the China Construction Bank, and 35.3 percent of the Industrial and Commercial Bank of China. China's Ministry of Finance also owns 35.3 percent of the Industrial and Commercial Bank of China, giving the government absolute control over the principal arms of the nation's financial industry.²¹⁸ All these banks were state owned before their respective public offerings, but the purchase of the additional shares will only strengthen the government's grip.

CIC has made several other major investments since its establishment. In November 2007, CIC announced plans to purchase \$100 million in shares of a Hong Kong initial public offering for the China Railway Group (CRG), a state-owned company that reportedly is one of the largest construction companies in the world.²¹⁹ Then in December 2007, CIC paid \$5 billion for a 9.9 percent stake in Morgan Stanley, one of the largest U.S. investment banks.²²⁰ Morgan Stanley stressed that CIC will have "no special" rights of ownership and no role in corporate management.²²¹ As in the Blackstone deal, the Morgan Stanley investment resulted in a loss, with the shares falling some 80 percent this year (as of October 2008).²²²

In 2008, CIC invested \$100 million in Visa's initial public offering and signed a deal with J.C. Flowers & Co., a U.S. private equity firm, to launch a \$4 billion private equity fund focusing on investments in U.S. financial assets.²²³ It will be the first private equity fund to be launched by CIC since it was established and likely will help mollify some of those complaining about CIC's investments, because the investment will be managed indirectly.²²⁴ Press accounts citing unnamed sources report that eight overseas asset managers are in final talks about contracting with CIC to run \$250 million to \$600 million of fixed income funds focused on emerging markets.²²⁵ Also indicative of CIC's intention to diversify its portfolio is the report in the state-controlled *China Securities Journal*

that it will “make international equity investments focusing on actively managed funds, shares in emerging market companies, and Asia Pacific stocks excluding Japan, [and] also plans to invest in a portfolio of blue-chip stocks.”²²⁶

In early October 2008, amid Wall Street turmoil, news reports indicated that CIC, which already has made a series of losing investments in western financial institutions, had \$5.4 billion frozen in a failed U.S. money market fund, Reserve Primary Fund.²²⁷ The investment, an 11.1 percent stake, was made through Stable Investment Corporation, a wholly owned CIC subsidiary registered at the same Beijing address as CIC and sharing employees with it.²²⁸ Reserve Primary Fund is in crisis, because in September 2008 it had to value \$785 million worth of Lehman Brothers debt securities at zero in the wake of the investment bank’s bankruptcy filing.²²⁹ As a result, Reserve Primary Fund was inundated with requests for withdrawal and after the value of its shares dropped to 97 cents, it froze all redemptions.²³⁰ The news of yet another disastrous investment and possible loss triggered enough public outrage to induce CIC to release a statement on its Web site “to clarify” the situation. In the press release, CIC said that although CIC “had invested in the [Reserve Primary Fund], [CIC] filed a redemption order before the Fund announced the suspension of redemption; in addition the Fund has confirmed in writing that CIC’s investment will be redeemed at par. [...] CIC is confident of its position with regard to the full recovery of its money.”²³¹ Though CIC seems assured that its investment will be recovered fully, this event will provide more fuel to those within the Chinese government and public who believe China should not invest in western financial markets. According to documents filed with the U.S. Securities and Exchange Commission (SEC), Stable Investment Corporation also has invested about \$5.9 billion in three other U.S. money market funds: \$2.1 billion in the Invesco Aim Liquid Portfolio; \$2.3 billion in the JPMorgan Prime Money Market Fund; and \$1.5 billion in Deutsche Asset Management’s DWS Money Market Trust.²³²

So far, most CIC investments appear to have been made based on noncommercial criteria. For example, there are indications that the State Council, the People’s Bank of China, and China’s National Development and Reform Commission insisted that CIC help to restructure the two state-owned banks (Agricultural Bank of China and China Development Bank) as a condition of CIC’s establishment.²³³ Li Yang, director of the Finance Research Institute of the Chinese Academy of Social Sciences, said that “as a state investment institution, the company [CIC] will work to ease the pressure of rising forex [foreign exchange] reserves and absorb market liquidity,” a goal which, while important for the Chinese state, certainly is not predicated solely on anticipated return on investment.²³⁴

Each of CIC’s foreign investments to date has acquired less than a 10 percent share of the company in which the investment was made—a level below which U.S. regulatory authorities consider the stake to be noncontrolling and thus exempt from investigation and oversight. This suggests that the Chinese are becoming more sophisticated in their investment activities and are learning from past experiences, such as when the Chinese oil company CNOOC

Ltd. attempted to acquire the U.S. oil firm Unocal Corp. in 2005 and encountered heavy U.S. opposition on the grounds that such a takeover would threaten U.S. national and economic security interests.

Possible Implications of CIC Investments for Global Markets and the U.S. Economy

While there has been little controversy over the behavior of most sovereign wealth funds, the potential financial clout of the 40 largest sovereign wealth funds, their opportunistic investing, and their linkages with nondemocratic regimes are sources of concern. In the case of China, its sovereign wealth funds are even more controversial because of their size and potential market effects. As of July 2008, the Chinese government held about \$967 billion in U.S. government securities, which made it the largest holder in the world and endows it with the ability to sway markets.²³⁵

According to the testimony before the Commission of Michael F. Martin, an analyst at the Congressional Research Service, one major worry is that “China [would use] CIC to secure significant market power over an important commodity market or financial sector.”²³⁶ Using its enormous wealth and government connections, CIC has the capacity to buttress China’s national energy security by, for example, purchasing vast natural gas and oil reserves or strategic minerals and ores. Such activities not only would grant China control over resources whose price normally is determined by the markets but also would harm other economies by restricting their access to these resources.

Another concern is that rumors or speculation about the investment activities of CIC may instigate increases in market volatility. Since CIC’s establishment, there have been cases in which stock prices of companies rumored to be possible targets of CIC investment have jumped as much as 10 percent in one day. In February 2008, a rumor that CIC, along with China Shenhua Energy, might invest in Australia’s iron ore company Fortescue, pushed up its stock price by 10.5 percent.²³⁷ Similarly, in late 2007, rumors that CIC was going to invest in Australian mining company Rio Tinto contributed to a 7.5 percent rise in Rio Tinto’s stock despite CIC’s repeated assertions that there was no truth to the rumor.²³⁸

The creation of CIC and, implicit in it, China’s desire to diversify its portfolio pose a host of other issues for the U.S. economy. As Dr. Setser, an expert on this issue, said in his testimony before the Commission, as long as “China manages its currency against the dollar, it is likely to face pressure to keep the majority of its foreign assets in dollars, which in turn implies it could soon be a large presence in the U.S. equity market.”²³⁹ Further, “so long as China’s government has an effective monopoly on outward Chinese investment flows, the growth of Chinese investment in the U.S. implies the growth of Chinese government investment in the [United States]—and the prospect that a foreign government will own sizeable stakes in a number of U.S. firms.”²⁴⁰

The recent investments by sovereign wealth funds, including CIC, in financial firms harmed by the subprime mortgage crisis were widely perceived as providing market stability at a time when

major financial firms like Morgan Stanley, Citigroup, and UBS were in trouble. In addition, because sovereign wealth funds typically are not highly leveraged and are seeking long-term returns from their investments, they are under less pressure to liquidate investments during times of major market volatility.²⁴¹

In his testimony before the Commission, Robert Dohner, deputy assistant secretary of the Treasury for Asia, said that the most pressing concern raised by sovereign wealth funds is the risk that their proliferation “could provoke a new wave of investment protectionism, which would be very harmful to the global economy.”^{*242} However, according to the testimony of Linda Chatman Thomsen, director of the Division of Enforcement at the Securities and Exchange Commission (SEC), the Treasury also is concerned that “through inefficient allocation of capital, perceived unfair competition with private firms, or the pursuit of broader strategic rather than strictly economic return-oriented investments,” sovereign wealth funds may contribute to market volatility and distortions.²⁴³

There are also worries about the potential for abuse or corruption created by the greater role sovereign wealth funds carve out for governments in the private sector. As the existing investments of CIC reveal, there is a growing network of interlinked investments among banks and other financial firms within China and overseas. Some U.S. financial analysts are concerned that CIC could seek to increase its market share in important industries via targeted acquisitions or takeovers.²⁴⁴ Others have warned that CIC’s investments in financial firms will provide those firms with unfair preferential access to China’s domestic financial markets.²⁴⁵

According to a July 2008 account in the *Sunday Telegraph*, HSBC Holdings, a banking group, is hoping for exactly such an outcome.²⁴⁶ The newspaper reported that Stephen Green, group chairman of HSBC Holdings, has met with officials from CIC several times in recent months to discuss the possibility of the Chinese sovereign wealth fund buying shares in HSBC on the open market, since the bank has no need to raise additional capital—a move, some analysts have suggested, that may facilitate HSBC’s listing on the Shanghai stock exchange and “reduce political barriers to its expansion into the Chinese market.”²⁴⁷ Another persistent worry is that China will place pressure on overseas financial firms in which it has invested to provide more positive and optimistic assessments of China’s economic prospects and the financial status of major Chinese companies courting international investors.²⁴⁸

An additional crucial issue is the conflicts of interest that arise when government is both the regulator and the regulated. Rules that might be applied rigorously to private sector competitors may

*“Investment protectionism” refers to the practice of countries erecting barriers to international investment, regardless of whether the investor holds a controlling interest in national firms, by, among other things, reducing the transparency of investment policies and processes, increasing regulatory obstacles, treating investors unequally through tax and regulatory policies that discriminate between foreign and domestic entities, or dictating to foreign investors how to allocate their investments. See Assistant Secretary of the Treasury for International Affairs Clay Lowery, *Remarks at Barclays Capital’s 12th Annual Global Inflation-Linked Conference*, Key Biscayne, FL, February 25, 2008. www.ustreas.gov/press/releases/hp836.htm; Secretary of the Treasury Henry M. Paulson, Jr., *Opening Statement at the Meeting of the U.S.-China Strategic Economic Dialogue*, Beijing, China, December 12, 2007. www.ustreas.gov/press/releases/hp727.htm.

not be applied necessarily in the same way to organizations that are a part of the government that makes the rules, and the opportunity for political corruption increases.²⁴⁹

For the SEC, which is charged with investor protection, sovereign wealth funds raise a number of problems, chief among them “the fact that the ability of U.S. supervisors to govern sovereign wealth funds is mostly unclear.”²⁵⁰ Like other participants in the U.S. capital markets, sovereign wealth funds are subject to federal securities laws, including a variety of disclosure requirements and antifraud provisions, generally found in sections 13 (Periodic and Other Reports) and 16 (Directors, Officers, and Principal Shareholders) of the Securities Exchange Act of 1934.²⁵¹ Neither international law nor the Foreign Sovereign Immunities Act renders these funds immune from the jurisdiction of U.S. courts in connection with their commercial activity conducted in the United States. These provisions include requirements that

Owners of more than 5 percent of a registered class of securities disclose their share ownership and any plans for influencing or taking over the issuer;

Institutional investment managers with discretion over accounts holding more than \$100 million of SEC-registered securities file quarterly reports on all SEC-registered securities in the accounts; and

*Owners of more than 10 percent of a class of equity securities registered with the SEC report on the size and composition of their holding and on changes to that ownership.*²⁵²

There are serious enforcement issues associated with sovereign wealth funds, however. They are relatively opaque and, “by virtue of their substantial assets,” have “substantial power in our financial markets,” which makes them similar to hedge funds that also are opaque.²⁵³

Hedge and private equity funds are virtually unregulated in the United States. They provide vehicles for CIC and other Chinese state-controlled entities legally to hide their investments from public view. CIC’s investment of a reported \$4 billion with J.C. Flowers & Co., a New York-based private equity firm, provides an illustration of how this can work. CIC’s investment reportedly represents 80 percent of the newly created Flowers fund. If this fund in turn purchases 10 percent of a publicly traded entity in the United States, the only disclosure precipitated by the transaction will be various filings with the SEC requiring information about the J.C. Flowers entity to be revealed, but not the underlying fact that CIC is an 80 percent investor in the vehicle that purchased 10 percent of the firm. Nor, for that matter, is there any disclosure requirement if the other 20 percent of the Flowers fund were held by other Chinese state-owned entities, if that were in fact the case. Disclosure of material information is the underpinning of the U.S. securities markets. But current disclosure rules do not appear uniformly to force the revelation of the routine investments (after the fact) by CIC or other sovereign wealth funds in the U.S. public securities market. Yet thousands of U.S. institutional investment managers

are legally required to disclose their holdings on a quarterly basis with the SEC.

In addition, unlike hedge and private equity funds, sovereign wealth funds have power derived from being governmental entities, which may give them access to government officials and information that is not available to other investors. SEC Enforcement Division Director Thomsen, testified before the Commission that there is “the potential for these powerful market participants to obtain material non-public information, either by virtue of their financial and governmental powers or by use of those powers, and to engage in illegal insider trading using that information.”²⁵⁴ The magnitude of any such conduct could be quite large, given the assets these funds have at their disposal.

Another series of issues associated with sovereign wealth funds relates to the need for law enforcement authorities to work together in order to police global markets effectively. According to Ms. Thomsen, each year the SEC “makes hundreds of requests to foreign regulators for enforcement assistance, and responds to hundreds of requests from other nations.”²⁵⁵ In the case of sovereign wealth funds, however, the SEC is concerned that if the government from which it seeks “assistance is also controlling the entity under investigation, the nature and extent of cooperation could be compromised.”²⁵⁶

National Security Considerations and Policy Responses

In many respects, the security concerns raised by sovereign wealth funds are an extension of the economic concerns, but they are not necessarily the same. Potential CIC investments in companies that possess important dual-use technology or intellectual property are one example. In theory, the review process of the Committee on Foreign Investment in the United States (CFIUS) checks proposed foreign investments in U.S. companies to ensure that sensitive technology will not be diverted to foreign actors in such a way as to threaten U.S. interests.²⁵⁷ In some ways, CIC’s portfolio investment abroad is “likely to produce less controversy than the outward expansion of China’s cash-rich state firms,” Dr. Setser said. That is because, if its public statements to that effect are any indication, the CIC lacks the capacity to manage controlling stakes in a large number of firms, whereas Chinese state-owned firms may want controlling stakes.²⁵⁸

In his testimony before the Commission, Dr. Navarro points to China’s historical record of “strategically deploying its excess foreign reserves as a ‘loss leader’ to achieve economic goals other than to maximize its financial return” and cites China’s persistent undervaluation of its currency.*²⁵⁹ By purchasing corporate assets, the argument goes, “Chinese sovereign wealth funds will be able to heavily influence decisions about the offshoring of jobs, managerial best practices, research and development, and technology transfer,” as well as to “seek to gain control of critical sectors of the U.S.

*“Loss leader” is a commodity offered by the seller at cost or below cost of production to attract customers. The price can even be so low that the product is sold at a loss. In other words, the seller is willing to accept a short-term loss of profit in exchange for some long-term benefits, like a future increase in sales.

economy—from ports and telecommunications to energy and defense, [and especially] ‘dual use’ technologies with both civilian and military applications.”²⁶⁰

In July 2007, Congress passed and the president signed into law the Foreign Investment and National Security Act of 2007 (FINSA). The law grants CFIUS the authority to investigate any foreign investment transaction (including mergers, acquisitions, or takeovers) if the transaction “threatens to impair the national security of the United States and that threat has not been mitigated during or prior to the review of a covered transaction”; if it “is a foreign government-controlled transaction”; or if it results in “control of any critical infrastructure of or within the United States by or on behalf of any foreign person.”²⁶¹ The new law also expands criteria for CFIUS to use when determining if an investigation of possible deleterious effects of a proposed transaction is warranted, including whether the transaction is a “foreign government-controlled transaction.”²⁶² FINSA codifies CFIUS’ authority to reopen an approved transaction if any party has omitted or submitted false or misleading material information or if any party intentionally and materially breaches a national security agreement aimed at mitigating the risk of the transaction.²⁶³ In addition, FINSA increases Congressional oversight of CFIUS by requiring more detailed reports to Congress on CFIUS actions and the results of its investigations. However, the authority to suspend or prohibit foreign investments in the United States remains with the president.²⁶⁴

Also, it remains unclear if purchases by CIC in concert with other state-controlled entities in increments of less than 10 percent over, for instance, several months or years would trigger a national security review under current CFIUS laws and regulations.

There are critics who do not believe the new law sufficiently protects the United States from the risks posed by the emerging sovereign wealth funds. Some maintain that while FINSA effectively deals with the national security risks posed by foreign investments, it does not adequately address the economic security risks.²⁶⁵ In his November 2007 testimony before the U.S. Senate Committee on Banking, Housing, and Urban Affairs, Dr. Truman mentioned that “some observers” are concerned about the stability implications for the U.S. economy and financial systems of sovereign wealth fund investments in “private equity firms, hedge funds, and regulated financial institutions.”²⁶⁶

Cognizant of the concerns raised by sovereign wealth funds in general and CIC in particular, the Treasury Department “has taken a number of steps to help ensure that the United States can continue to benefit from open investment, including by sovereign wealth funds, while addressing these potential concerns.”²⁶⁷ In addition to strengthening and aggressively implementing the CFIUS process, the Treasury has “proposed that the international community collaborate on a multilateral framework for best practices for sovereign wealth funds.”²⁶⁸

The IMF, with support from the World Bank and input from sovereign wealth funds, has developed a voluntary code of best practices for sovereign wealth funds that will “provide guidance to new funds on how to structure themselves, reduce any potential systemic risk, and help demonstrate to critics that sovereign wealth

funds can continue to be responsible, constructive participants in the international financial system.”²⁶⁹ The IMF’s International Working Group of Sovereign Wealth Funds (IWG), whose members include nations such as China and Abu Dhabi that operate sovereign wealth funds as well as countries such as the United States that have received funds, reached broad agreement on the Generally Accepted Principles and Practices (GAPP) after September 2008 negotiations in Santiago.²⁷⁰ The 24 voluntary principles and practices, the so-called “Santiago Principles,” have been hailed by Deputy Secretary of the Treasury Robert Kimmitt as “a milestone in enhancing the openness and transparency of the global financial system and in promoting open investment worldwide.”²⁷¹ The IWG members will implement the principles on a voluntary basis, “*each of which is subject to* [sic] home country laws, regulations, requirements and obligations”; the IMF will not play a monitoring role.²⁷²

The principles are intended to allay concerns that sovereign wealth fund investments are politically motivated by emphasizing that their policy purpose should be clearly defined and publicly disclosed, and based on economic and financial objectives (GAPP Principle 2).²⁷³ If a fund chooses to pursue any other objectives, they should be narrowly defined and mandated explicitly, while ensuring that investments are undertaken without “any intention or obligation to fulfill, directly or indirectly, any geopolitical agenda of the government.”²⁷⁴ GAPP Principle 19 goes further, calling for investment decisions that “are subject to other than economic and financial considerations [to] be clearly set out in the investment policy and be publicly disclosed.”²⁷⁵ GAPP Principle 9, discussing sovereign wealth funds’ operational management, suggests that to “enhance confidence in recipient countries, it is important that managers’ individual investment decisions to implement the [sovereign wealth fund’s] defined strategy be protected from undue and direct political interference and influence. As owner, the role of the government is to determine the broad policy objectives of the [sovereign wealth fund], but not to intervene in decisions relating to particular investments.”²⁷⁶ On the issue of a fund’s access to market-sensitive information through its government connections, GAPP Principle 20 suggests that sovereign wealth funds “should not seek or take advantage of privileged information or inappropriate influence by the broader government in competing with private entities.”²⁷⁷ The principles also call for sovereign wealth funds to establish a clear division of roles between owners and managers (GAPP Principle 6) and, if a sovereign wealth fund chooses to exercise ownership rights, publicly to disclose its approach to voting and other factors guiding its exercise of ownership rights (GAPP Principle 21).²⁷⁸

According to Dr. Truman, an expert on sovereign wealth funds, the weakest areas of the Santiago Principles are those related to transparency and accountability. “Disturbingly, many of the principles are silent about disclosure to the general public or only call for disclosure to the fund’s owner. That approach does not promote the needed accountability to citizens of the country with the SWF [sovereign wealth fund] or of other countries,” Dr. Truman wrote.²⁷⁹ GAPP Principle 11 calls for publication of an annual report, while GAPP Principle 17 suggests public disclosure of funds’

asset allocations, benchmarks, and rates of return.²⁸⁰ At the same time, however, the principles “[are silent] on each fund’s revealing its size even while endorsing full annual reports where that information would be redacted,” according to Dr. Truman.²⁸¹ During the press briefing at the launch of the Santiago Principles, David Murray of the Australia Future Fund, chair of the IWG’s Drafting Group, stated that “we [the IWG] believe that size is not necessarily indicative of trust in terms of economic intent, whereas a demonstration of strategic asset allocation, benchmarks, investment policy, and those things which give rise to the real risk appetite and decision making of the sovereign wealth fund are more likely to build trust than just an exposition of size.”²⁸²

A plethora of other government and quasi-government organizations, both within individual nations and multilateral institutions, is scrutinizing sovereign wealth funds and formulating the best ways to coexist with them. The Organization for Economic Cooperation and Development (OECD) is working to identify best practices for countries that receive foreign government-controlled investment, which will focus on avoiding protectionism.²⁸³ In April 2008, as an initial step, the OECD Investment Committee published a report on “Sovereign Wealth Funds and Recipient Country Policies,” which provides guidance for recipient country policies toward sovereign wealth fund investment, drawing on key OECD investment policy principles of transparency, liberalization, nondiscrimination, predictability, and accountability.²⁸⁴

The U.S. Treasury Department has created a working group on sovereign wealth funds that draws on the expertise of Treasury’s offices of International Affairs and Domestic Finance. The President’s Working Group on Financial Markets, chaired by Treasury Secretary Henry Paulson, has initiated a review of sovereign wealth funds.²⁸⁵ In September 2008, the United States and China launched the negotiation of a bilateral investment treaty. The negotiations are still in the very early stages but could have an impact on the regulation of investments by China’s sovereign wealth fund and other entities in the United States. (See chap. 1, sec. 1, for additional discussion on the investment treaty.)

The U.S. policy response to sovereign wealth funds in general is especially constrained, because much existing financial regulatory law, particularly pertaining to banking and taxation, was not written with sovereign wealth funds in mind and must be adapted. A June 2008 report by the Congressional Joint Committee on Taxation discussed the application to sovereign wealth fund investments of existing tax law that pertains to commercial endeavors of foreign governments. Under the current U.S. tax code, passive portfolio investments by foreign governments are not deemed to be commercial and therefore are exempt from taxation. This exemption is not specifically directed at sovereign wealth funds and, in fact, “first became part of the U.S. income tax laws in 1917, long before the first sovereign wealth funds were created.”²⁸⁶ While a controlling stake would mean that the sovereign investor would be liable for taxes like a private investor, the Joint Committee on Taxation report states that

[...] some of the most important statutory U.S. income tax advantages that a foreign sovereign investor enjoys over a

foreign private investor are: exemption from U.S. withholding tax on all U.S. source dividends paid by noncontrolled corporations; exemption from U.S. withholding tax on interest paid by a corporation where the foreign sovereign owns at least 10 percent (so the general 'portfolio interest' exemption is not available) but less than 50 percent (so the payor is not 'controlled' by the foreign sovereign) of the payor; and exemption from U.S. tax on certain gains from real estate transactions.²⁸⁷

Existing banking law was not written with sovereign funds in mind, but the experiences of applying it to transactions of foreign government investors in the United States, including those pertaining to state banks, provide precedents worth considering. In any event, moving through these uncharted waters to devise and tailor new applications of the old laws is challenging.

These difficulties have contributed initially to delays in a decision on whether to allow two Chinese state banks, Industrial and Commercial Bank of China and China Construction Bank, to open branches in the United States. Since CIC was established and given control of Central Huijin, the state bank holding company, CIC, has held responsibility for managing the controlling stakes in Chinese state banks. Therefore the U.S. Federal Reserve had to decide "whether CIC should itself, as the ultimate controlling shareholder in the banks, be treated as a bank holding company" and subject to the same obligations as Central Huijin.²⁸⁸

The U.S. Federal Reserve Bank approved Industrial and Commercial Bank of China's application in August 2008 (China Construction Bank's application is still under consideration) but with a warning that CIC "cannot subsidize loans for its companies" through the New York branch of the Industrial and Commercial Bank of China.²⁸⁹ Transactions with companies controlled by CIC will be limited to 20 percent of the Industrial and Commercial Bank of China branch's lending base, the Federal Reserve said.²⁹⁰ In a legal interpretation letter issued concurrently with the Industrial and Commercial Bank of China's approval order, the Federal Reserve granted to CIC and Central Huijin exemptions under the Bank Holding Company Act from the nonbanking restrictions of the act.²⁹¹ The Fed granted the exemptions based on CIC's and Central Huijin's status as wholly state-owned vehicles and on the conditions that they conduct "the greater part of [their] business ... outside the United States" and obey several other ownership and holding restrictions pertaining to financial holding companies, banks, and bank holding companies.²⁹²

Conclusions

- The significant expansion of the Chinese government's involvement in the international economy in general and in the U.S. economy in particular has concerned many economists and government officials due to uncertainty about the Chinese government's and the Chinese Communist Party's motivations, strategies, and possible impacts on market stability and national security. At the same time, cash-strapped U.S. firms have welcomed

the investments, viewing them as stable and secure sources of financing in the wake of the credit crunch.

- China's government uses a number of state-controlled investment vehicles among which it chooses depending on its particular investment purposes and strategies; most widely known among such vehicles are China Investment Corporation (CIC), the State Administration for Foreign Exchange (SAFE), and China International Trust and Investment Corporation (CITIC).
- Some aspects of China Investment Corporation's mandate follow China's industrial policy planning and promotion of domestic industries by, for example, investing in natural resources and emerging markets that are relevant for the advancement of China's value-added industries. CIC and SAFE form just one part of a complex web of state-owned banks, state-owned companies and industries, and pension funds, all of which receive financing and instructions from the central government, promote a state-led development agenda, and have varying levels of transparency. Many of their investment activities contravene official assurances that they are not being managed to wield political influence.
- Regulations governing investments by sovereign wealth funds, especially disclosure requirements pertaining to their transactions and ownership stakes, are still in development, both in the multilateral arena and in the United States. There is concern that the Chinese government can hide its ownership of U.S. companies by using stakes in private equity vehicles like hedge or investment funds.
- China's foreign exchange reserves continue to grow, while its management of the exchange rate has given it monopoly control on outward flows of investment. This strongly suggests that China will have a very substantial and long-term presence in the U.S. economy through equity stakes; loans; mergers and acquisitions; ownership of land, factories, and companies; and other forms of investment.

SECTION 3: RESEARCH AND DEVELOPMENT, TECHNOLOGICAL ADVANCES IN SOME KEY INDUSTRIES, AND CHANGING TRADE FLOWS WITH CHINA

“The Commission shall investigate and report exclusively on—
...

“WORLD TRADE ORGANIZATION COMPLIANCE—The compliance of the People’s Republic of China with its accession agreement to the World Trade Organization.

“ECONOMIC TRANSFERS—The qualitative and quantitative nature of the transfer of United States production activities to the People’s Republic of China, including the relocation of high technology, manufacturing, and research and development facilities, the impact of such transfers on United States national security, the adequacy of United States export control laws, and the effect of such transfers on United States economic security and employment. ...”

Introduction

In January 2006, Beijing published its “Medium to Long-term Plan for the Development of Science and Technology” that detailed the country’s 15-year technology development blueprint. It made clear that China intends to become “an innovation-oriented society” by 2020 and, by 2050, a world leader in science and technology. China seeks to “develop indigenous innovation capabilities, leapfrog into leading positions in new science-based industries, increase R&D [research and development] expenditures to 2.5 percent of GDP [gross domestic product] by 2020, increase the contribution to economic growth from technological advances to 60 percent, limit dependence on imported technology to 30 percent, and become one of the top five countries in the world in the number of patents granted.”²⁹³

China’s government is openly pursuing the goal of increasing the nation’s high-value-added exports while deemphasizing exports of commodity and low-value-added goods, particularly those that require large amounts of energy in their production. The Chinese leadership hopes to accomplish this change, in part, by nurturing a high-technology production sector to produce for export such goods as computers, aerospace components, and telecommunications equipment. Beijing also seeks to increase production within China of high-tech manufacturing inputs such as semiconductors

and printed circuits in order to create a more vertically integrated high-technology sector.²⁹⁴ Already, China no longer is simply an assembler of parts made elsewhere in Asia but increasingly is a growing technology power on the continent.

China's leaders seek to enhance its advanced technology production through subsidies and other incentives to attract foreign-invested research and technology companies to China. Acquisition of foreign technology is intended to speed China's development of advanced products. The Commission examined the relationships among Chinese and foreign technology companies in a public hearing in Washington, DC, on July 16, 2008. The Commission considered whether the growing presence of foreign-invested research and development centers in China and foreign-invested production facilities for high-tech goods has accelerated China's move into high-technology products, as China's industrial policy openly intends. The Commission also considered whether China's efforts to develop advanced technology products are compatible with the pledge that China undertook in 2001 when it joined the World Trade Organization (WTO): to forgo export subsidies, forced technology transfers, and intellectual property violations.

Further, the Commission examined in particular one source of China's economic growth—international trade patterns. China's GDP growth rate has averaged 10.5 percent per year for the past two decades—twice the rate of the global economy and four times the rate of the U.S. GDP. One key factor in this consistently high growth rate is China's deliberate policy of nurturing export and investment-led economic growth. With a high savings rate, strict capital controls, and low public welfare and social spending, China has accumulated current account surpluses with the United States of over \$1.2 trillion since it joined the WTO. China also has accumulated the world's largest foreign currency reserves, which grew from \$212 billion when it joined the WTO to nearly \$2 trillion in 2008.

In 2007, China edged out Germany to become the world's leading exporter of manufactured goods, and it is now the largest manufacturing exporter to the United States, the European Union (EU)—25, and Japan.²⁹⁵ This trend is reflected in the growing U.S. current account deficit with China, which increased from \$88.7 billion in 2001 to \$289.7 billion in 2007.²⁹⁶ (In the first half of 2008, the U.S. current account deficit with China rose to \$136 billion from \$134 billion in the first half of 2007). The U.S. deficit with China in advanced technology products grew from \$1.4 billion in 2001 to \$49.3 billion in 2006, a 3,421 percent increase.²⁹⁷

China's Rapid Progress in Advanced Technology

China's government intends to create a more knowledge-based and technologically proficient economy. China has enlisted the help of many western companies in that effort over the past 20 years, with evident success. China already has become an important international center for the development and testing of new pharmaceuticals. China is considered a world leader in nanotechnology, which has many potential applications across a wide range of high-technology products. The number of Chinese nanotechnology-re-

lated publications in scientific journals is now second only to those published in the United States.*²⁹⁸ China's college and university system has retooled and now is able to supply the country's technology sector with a glut of scientists and engineers. An estimated 40 percent of graduates from Chinese undergraduate and graduate programs now receive degrees in science, technology, engineering, or mathematics, although some of the degrees may not be of comparable quality to U.S. degrees.²⁹⁹

Already China has advanced rapidly in the production of automobiles, aerospace, information technology, and telecommunications. China also is striking out on its own in such advanced fields as agriculture biotechnology (genetically modified foods) and nanotechnology by providing financial and tax incentives to those industries, and it has joined the United States, Argentina, Canada, and Brazil as leaders in the important field of genetically modified foods.

China has become a very significant exporter of advanced technology products.† In 2004, China achieved a global trade surplus (of \$14 billion) in computers and electrical machinery and in equipment and parts, according to figures from the U.S. Department of Commerce; even with the economic downturn, this surplus is projected to grow 60 percent, from \$147 billion in 2007 to \$235 billion in 2008.³⁰⁰ Meanwhile, the United States, historically a net exporter of advanced technology products, experienced a global deficit in this category for the first time in 2002, according to Census Bureau figures using the bureau's definition of advanced technology products. The U.S. advanced technology products deficit with China is now eight times the corresponding U.S. deficit with Japan.³⁰¹ The United States is expected to run a \$124 billion deficit with China in machinery and computers alone in 2008 and an advanced technology products global deficit of \$50 billion in 2008.³⁰² These figures are projected to increase in future years.

The composition of China's exports, particularly those manufactured in association with foreign-invested firms, already reflects the shift away from labor-intensive, low-value-added products to higher-value, technology-based goods. In 2007, 58 percent of total merchandise exports consisted of machinery and electronics, while the share for clothing declined from 14 percent in 2000 to 9 percent in 2007.³⁰³ The share of total merchandise exports by foreign firms and joint ventures located in China rose from 48 percent in 2000 to 57 percent in 2007. The share of Chinese high-technology exports by foreign firms and joint ventures increased from 65 percent in 1996 to nearly 90 percent in 2005.³⁰⁴ Both sets of numbers indicate that foreign firms, particularly those involved in producing high-technology products, are using China as an export platform rather than just selling domestically.

China's total research and development effort has been growing about 17 percent annually over the past 12 years.³⁰⁵ From 2000 to

*The number of articles published in scientific journals is one of several recognized guidelines for judging scientific advancement among nations. The quality of the articles is not necessarily equal, however.

†No universally accepted definition exists, but the operational definition used by the U.S. Department of Commerce includes computers and parts, office and electrical machinery, telecommunications gear, biotechnology, opto-electronics, advanced materials, aerospace, weapons, and nuclear technology.

2006, R&D spending in China from all sources increased by 19 percent per year compared with 4 percent in the United States, the EU-15, and Japan.³⁰⁶ In 2007, China's spending on R&D amounted to over 300 billion RMB (\$44 billion) or 1.49 percent of GDP, which places China among the world leaders in research. In nominal terms, China ranks fifth in the world in R&D spending, but it moves up to second place when the calculation is made according to purchasing power parity.³⁰⁷ The government has set an overall goal of increasing R&D spending to 2.5 percent of gross domestic product by 2010, which would be comparable to the U.S. rate and would constitute a doubling of China's rate in four years.³⁰⁸

The contribution of foreign-invested enterprises to China's ambitions and capabilities remains controversial, even within China. Through a variety of government initiatives, China has succeeded in attracting technology production to the country. Despite promises in its WTO accession agreement to forgo imposing technology transfer requirements on foreign investors,³⁰⁹ China has insisted that portions of commercial passenger jets be manufactured and assembled in China as a condition of purchasing them, a practice known as "offsets." A key objective for China appears to be acquiring technology from American and European aerospace companies so that it can independently manufacture its own aerospace products. China also has sought to acquire process technology from U.S. and European automobile manufacturers by requiring foreign companies to form joint ventures with Chinese companies to assemble cars and trucks in China.

China has given numerous subsidies and incentives to foreign firms to locate research and technology and production facilities there. One powerful incentive has been China's practice of manipulating its currency—an action designed in part to make investments in China cheaper than if the RMB were allowed to seek a market level. Consequently, foreign-funded R&D in China has added considerably to domestic R&D efforts. The number of foreign R&D centers in China has nearly tripled since 2002, to 1,160.^{310,311} Locating R&D efforts within China likely leads to eventual establishment of production facilities there as well.

A majority of manufactured exports from China are made by foreign-invested firms. In reaction to the proliferation of foreign-invested firms, an internal debate has broken out in China on whether too much of the profits from exports of manufactured goods is going to foreign-invested enterprises rather than indigenous enterprises. Presumably in response to this debate, within the past two years the Chinese leadership has begun to favor domestic companies over foreign-invested enterprises in its tax and investment policies.

China has designated 17 engineering and scientific megaprojects meant to boost indigenous efforts, including advanced, numeric-controlled machinery; extra-large-scale integrated circuits; new-generation broadband wireless; and manned spaceflight. But China remains anxious to shorten the R&D and product development processes in order to reduce their time and resource requirements and will continue to seek technology transfers in these and other areas from foreign-invested enterprises and joint ventures.³¹²

In contrast, the United States has not established any effective policies or mechanisms at the federal level to retain R&D facilities or establish new ones within its borders. In fact, between 1998 and 2003, investment in R&D by U.S. majority-owned affiliates increased twice as fast overseas as did all corporate R&D investments in the United States (52 percent and 26 percent, respectively). During that time period, the share of U.S. corporate R&D sites within the United States declined from 59 percent to 52 percent, while the share of U.S. corporations' R&D sites located in China and India increased from 8 percent to 18 percent.³¹³ The only encouraging exceptions to this trend have resulted from the efforts of several state governments—such as North Carolina's that in the past several years has significantly expanded and strengthened the Research Triangle Park in the Raleigh-Durham-Chapel Hill area. The research park is the largest such effort in the United States, and its success was addressed in section 4 of chapter 1 of this Commission's 2007 Report to Congress.

Exactly how many steps up the technology quality ladder foreign-invested enterprises have boosted China is still disputed among experts. But China is making considerable progress in moving up that ladder. It became the world's third-largest car maker in 2006, behind the United States and Japan. In 2008, China is expected to produce 10 million vehicles, and if the current rate of growth continues, it will produce 12 million in 2010.³¹⁴ The majority of this auto production is by joint ventures that were established between state-owned enterprises with major multinational firms such as General Motors and Volkswagen.

China also is moving forward to develop its own commercial aerospace industry. China's aviation industry already consists of more than 200 enterprises that produce and manufacture products for aerospace, and they employ 491,000 workers. However, China, like most nations, still is a net importer of commercial passenger aircraft. (There are four major exporters of finished aircraft: the United States, France [because it is home to the final assembly plant for the European consortium that owns Airbus], Canada, and Brazil.)³¹⁵ But China has ambitious plans to manufacture a large passenger jet by 2020 to compete with the two world leaders, Airbus S.A.S. and The Boeing Company. Toward this end, China in 2008 created the Commercial Aircraft Corporation of China with the specific goal of building a passenger jet with more than 150 seats.

Whether Chinese workers merely assemble into intermediate or final products parts manufactured in and supplied by other Asian nations has been a persistent question. That is still not clear. Too little research has been done on this question to supply a definitive answer, according to witnesses at the Commission hearing. But the trend seems apparent: China increasingly is the source of the parts that go into the final products assembled in China. For example, the ratio of China's computer and parts exports to imports climbed from 2.6 to 1 in 2000, to 4.7 to 1 in 2007, "indicating a sea change in value added," according to one Commission witness.³¹⁶ (The higher the ratio, the more domestic content is in the product.)

In fact, China's ratio of imports to exports in the technology sector is moving in the direction of South Korea's and Taiwan's ra-

tios—two of Asia’s technology tigers. China’s share of world technology exports was 14 percent in 2005, and its share of imports was 12 percent, or a ratio of 7 to 6. For South Korea, the ratio was 5.3 to 3.1; and for Taiwan, it was 4.4 to 2.8. Japan was a standout among nations, with 8.5 percent of world technology exports and just 4.7 of tech imports. The United States, by contrast, ran a huge \$120 billion deficit, with 10 percent of the world’s tech exports but 15 percent of its imports.³¹⁷

The U.S. technology trade balance continues to deteriorate. The U.S. global balance in advanced technology products suffered its worst-ever one-month loss in July 2008, with a deficit of \$7.1 billion, bringing the seven-month 2008 deficit in U.S. high-tech trade to a record \$29.9 billion. The U.S. advanced technology products deficit with China alone reached a new monthly record of \$7.2 billion in July and a new seven-month record of \$40.5 billion.

The United States continues to maintain an overall lead in some of the indices of success in advanced technology. A 2008 RAND Corporation report notes that

*The United States accounts for 40 percent of total world R&D spending and 38 percent of patented new technology inventions by the industrialized nations of the OECD [Organization for Economic Cooperation and Development], employs 37 percent of OECD researchers, produces 35 percent, 49 percent, and 63 percent, respectively, of total world publications, citations, and highly cited publications, employs 70 percent of the world’s Nobel Prize winners and 66 percent of its most-cited individuals, and is the home to 75 percent of both the world’s top 20 and top 40 universities and 58 percent of the top 100.*³¹⁸

However, RAND Corporation noted some disquieting trends as well. China added the same number of researchers as did the United States in the period 1995–2002, and both the EU–15 and China have been graduating more scientists and engineers than the United States. Students in America’s high schools “demonstrate lower achievement than most of their peers in other industrialized nations.” Also, the “diminishing share of degrees awarded to U.S. citizens, particularly for the higher degrees such as doctorates and masters, suggests that science and engineering careers are becoming less attractive to U.S. citizens or, alternatively, that U.S. citizens encounter more competition (from foreigners) in applying for a limited number of desirable spots at colleges and universities.”³¹⁹

Perhaps most ominously:

*The United States is less capable (than it once was when it was more dominant) of denying other nations access to advanced technology to maintain a wide military capability gap between itself and potential adversaries. Technological capability is more widely diffused to potential competitors and may provide adversaries with capability to pursue non-traditional strategies and tactics on the battlefield or through insurgency and terrorism.*³²⁰

In its critique of the RAND study, The Information Technology & Innovation Foundation³²¹ notes that most of the study’s statis-

tics are no more recent than 2003, which the foundation says is “not adequately reflective of the competitive challenge that has emerged since 2000 and do[es] not satisfactorily depict the competitive landscape as it exists in mid-2008.” The critique notes that the most intensive period of R&D offshoring occurred more recently than the period covered by RAND as “innovations in information technology . . . have made offshoring of R&D and other services economically feasible.”³²²

Does the Growing Trade Deficit in Advanced Technology Matter?

While few experts dismiss trade deficits as meaningless, there is considerable debate about the nature and severity of harm that bilateral trade deficits in goods and services can cause a nation. That diversity of opinion was reflected in the Commission’s July 2008 hearing. One Commission witness, economist Charles W. McMillion, calculated that America’s cumulative \$1 trillion trade deficit in goods with China from 2000 through 2007 led to the loss of slightly over one million U.S. jobs, which would certainly constitute a drag on the overall U.S. economy.³²³

But others stressed the overall benefits of free trade with China. Mary Amiti, a senior economist at the Federal Reserve Bank of New York, agreed that China “has moved from labor intensive goods such as apparel, textiles, footwear and toys to sophisticated manufactured machinery goods, which now comprise more than 50 percent of its world exports.”³²⁴ But she argued that China’s rise as an advanced technology products exporting power, particularly its production of computers, telecommunications gear, and office machinery, is due to China’s having become an assembly point for electronics parts originating elsewhere in Asia, such as Taiwan, Korea, and Japan. “The value added in China continues to be in the more labor intensive parts of the production process,” she said. Therefore, many of the job losses due to the trade deficit in advanced technology products should be allocated to other countries throughout Asia that are supplying manufacturing inputs to China [rather than to the United States], she said. Dr. Amiti, however, was also among those witnesses who said a lack of data collected by the U.S. government has made it difficult to reach timely conclusions on the nature and effects of the U.S. trade imbalance. Some of the most recent trade statistics on advanced technology products goods are three or more years old, she noted.

Few if any international trade experts believe that the United States should maintain a balance of exports and imports with each of its trading partners. Certainly the balance of trade is affected by changes in macroeconomic conditions, the business cycle, and a country’s investment requirements—all of which are subject to market fluctuations. Developing nations often run deficits as they invest in capital goods; this can be healthy for their future growth. Developed economies often run trade surpluses in manufactured goods, as did the United States through much of the 20th century. But many economists are alarmed by a current account deficit that registers 5 percent of GDP, which is the U.S. current account deficit level as of August 2008.³²⁵

The last time the United States decided to deal with such large imbalances, in 1985, the United States convened an international meeting in New York at the Plaza Hotel to agree on a realignment of currencies. The Plaza Accord led to a 50 percent decline in the trade-weighted value of the dollar and a large reduction in the U.S. trade deficit. One witness in the July 16 hearing advocated a second such effort aimed at China, much as the 1985 effort was aimed at Japan.³²⁶

Reaching a conclusion on whether the United States is being harmed by U.S.-based producers of advanced technology products locating production and research and development facilities in China was another difficult challenge placed before the witnesses at the Commission's July 2008 hearing. Several witnesses said that the U.S. government spends too little effort in compiling statistics on research and development and related foreign investment issues, thus making it difficult to analyze accurately what is occurring and what is likely to occur, and how fast circumstances are changing. Dr. Amity noted that her research on China and the United States depended on three-year-old information from China, the International Monetary Fund (IMF), and the World Bank rather than any updated U.S. sources. Witnesses also said that the U.S. government knows little about the experience of U.S. technology corporations locating in China. "Right now, I believe the U.S.-based companies are attempting to control what they would view as the key technologies or the core technology and keeping them in areas with very strong intellectual property protection, which is not yet the case in China," said Kent Hughes, director of the program on Science, Technology, America and the Global Economy at the Woodrow Wilson International Center for Scholars. Their rate of success, however, is less certain, he said.

Reinstating the Office of Technology Assessment (OTA), a respected 23-year-old Congressional advisory body that was closed in 1995, has been suggested by authorities on science and technology, including Dr. Hughes. Although the National Academy of Sciences also follows developments in the technology field, the *Bulletin of the Atomic Scientists* notes that

In contrast, OTA looked at science and technology from a broader societal context. It investigated the potential unforeseen social, economic, and environmental consequences of a technology's widespread implementation and communicated its findings in language carefully tuned to congressional audiences. OTA used a process in which committees of science and technology experts served as advisers rather than as the report's authors. (NAS [the National Academy of Sciences] does not separate the two responsibilities.) OTA reports did not make specific consensus policy recommendations, but rather, sought the views of all the important stakeholders and then explained the possible consequences of alternative courses of action to help inform congressional debate. This type of information is critical for Congress to responsibly implement and oversee policies dealing with alternative energy sources, biodefense research, and other complex issues. OTA would provide Congress the broad perspective needed to write the best possible legislation. Given

*our current domestic and global mess, we need all the help we can get.*³²⁷

The applicability of many research projects to eventual military use adds another dimension to the issue of technology transfers to China. "It is an objective of PRC [People's Republic of China] policy to exploit such commercial and dual-use opportunities to enhance its defense industrial sector as part of ongoing military modernization efforts, not unlike the defense sector in the United States and other countries, which rely in part on commercial market investments and innovations," according to Kathleen Walsh, an assistant professor at the Naval War College. The United States should make greater efforts to "exploit the hell out of" technological developments in China. "I think if we continue what seems to be a more laissez-faire approach to this, that it will become a threat, that we will fall behind, that we won't maintain our competitive edge in innovation," Ms. Walsh said. Both Ms. Walsh and Dr. Hughes said that the United States lacks a technology strategy but definitely needs one.

Walsh concluded that technology advances, if shared among nations, could benefit all. She cited advances on energy efficiency and pollution controls. "What may matter most is not where the ideas come from but what is done with them," she told the Commission.

China's Automotive Sector Is Growing Quickly

After concentrating largely on supplying its rapidly growing domestic market for vehicles, China now is becoming a major exporter. China shipped 600,000 vehicles abroad in 2007, up from 78,000 in 2004. So far, this growth in exports has been directed primarily toward developing countries or emerging markets such as Russia, South Africa, and Iran. But that may be about to change as China develops the capability to meet the more stringent anti-pollution and safety requirements of the European and American markets.

China's auto production is on a fast roll. China's auto output has nearly quintupled since 2001, and China is expected to become the world's largest producer in 2009.³²⁸ Half the world's auto industry expansion has recently occurred in China.³²⁹ China achieved a surplus in auto parts in 2005. That surplus grew 83 percent in 2007 and has been increasing at an even faster rate in 2008.

China's potential domestic auto market is so enormous that just supplying it might seem a sufficient challenge for a domestic industry that still is largely dependent on joint ventures with western companies. In 2006, there were just 10 vehicles per 1,000 residents, as compared to 940 in the United States and 584 in Western Europe. But China's government seeks to wean its auto industry from dependence on the joint ventures. Notes Qingjiu Tao, an expert on the Chinese automotive industry who teaches management at Lehigh University:

The original thinking behind the Open Door policy in China's auto market by forming JVs [joint ventures] with multinationals was to access capital and technology and to develop Chinese domestic partners into self-sustaining inde-

*pendent players. However, this market-for-technology strategy failed to achieve its original goal. Cooperation with foreign car companies did bring in capital and relevant technology, but also led to over-dependence on foreign technology and inadequate capacity (or even incentive) for independent innovations. By forming JVs with all the major domestic manufacturers and controlling brands, designs, and key technologies, multinational companies effectively eliminated the domestic competition for the most part of the last two decades. Only in the last few years did Chinese manufacturers start to design, produce, and market independent brands. In 2006, domestic companies controlled some 27 percent of the domestic market (mostly in entry-to-mid-level segments). They have become masters at controlling costs and holding prices down, with a typical Chinese auto worker earning \$1.95 an hour against a German counterpart making \$49.50 an hour.*³³⁰

Beijing's goal, says Dr. Tao, citing the State Development and Reform Commission, is to "make China the fourth pole of the global automotive industry" behind the United States, Germany, and Japan. To do so, Beijing envisions "emancipating" Chinese auto companies from their western JV partners, following international safety and emissions standards, and establishing "preferential income tax rates for high-tech companies."³³¹

The likelihood of China being able to export many cars to the North American market in the near future "is quite low," says Dr. Tao. All the various plans announced during the past three years by Chinese companies to begin exporting cars to the United States have been rescinded. China may yet be 10 to 20 years behind the leading multinational firms in the development of internal combustion engines, but several Chinese firms have made significant progress in the past three years in the development of alternative engine technology. Dr. Tao concluded, however, by noting that if China can develop a new, energy-efficient car engine, China could "leapfrog" the old gasoline engine technology and become competitive in North America.

One Chinese company, Build Your Dreams, a rechargeable battery maker, plans to build an all-electric car by June of 2009 and to market it abroad by 2011. A company founded by American financier Warren Buffett, Berkshire Hathaway, purchased a 10 percent stake in the 13-year-old Chinese company in September, explaining that Build Your Dreams "is on the cutting edge of battery technology."³³²

China Plans an Aerospace Sector to Equal America's and Europe's

China is determined to advance at all levels of aerospace technology, from jet fighters to satellites, and from space travel to commercial aircraft. China plans a global positioning system of 30 satellites called "Compass" that will cover China and the western Pacific Ocean. China put its first astronaut in space in 2003, launched a lunar satellite in 2007, accomplished its first space walk in September 2008, and even plans a manned moon landing at a time not

yet specified. (See chap. 2, sec. 3, for additional detail about China's space activities, especially their military/security implications.) Meanwhile, China has been developing small- and medium-sized commercial passenger jets and in 2008 created a state-owned corporation to produce a wide-body passenger jet to compete directly with the largest passenger aircraft from The Boeing Company and Airbus S.A.S.³³³ Much of China's objectives for its aerospace sector are spelled out in the government's Eleventh Five-Year Plan.

China's aviation industry consists of more than 200 separate enterprises, many of them state owned, which produce aircraft, turbo-prop engines, aircraft components and subsystems, and helicopters, according to a 2005 U.S. Department of Commerce study. The 200 are grouped into two very large, government-controlled conglomerates, China Aviation Corporations I and II, or AVIC I and AVIC II, as they are generally known. Their production has allowed China to maintain a positive trade balance in aircraft parts since 2006, although not in finished commercial aircraft.

These developments in China are occurring at a time when the U.S. aerospace industry is continuing to lose jobs. The U.S. industry has lost 500,000 jobs in the past 20 years, according to the Aerospace Industry Association. Certainly the loss of all these U.S. jobs is not due to competition from China. Europe's Airbus is the principal competitor to Boeing in the international commercial aircraft sector, and Brazil and Canada are competitors in small- and medium-sized aircraft as well. Other factors, such as sharply increased productivity enabled by automation and new manufacturing techniques, are partly responsible.³³⁴ But some number of jobs have been lost specifically to competition from Japan and China as well as other nations due, in part, to demands from those nations for offsets (as addressed previously in this section). In the case of passenger jets, this translates into a requirement by the purchasing country that, in exchange for its purchase of the finished products, some portion of passenger jets be manufactured within its boundaries.³³⁵ For example, Boeing notes on its Web site that there are over 4,500 Boeing airplanes with parts and assemblies built in China that are flying in the world today. According to company summaries, Boeing has purchased more than \$1 billion in aviation hardware and services from China, and Boeing and its supplier partners have contracts to purchase from China's industry over \$2.5 billion in additional parts and services.³³⁶ On its Web site, Airbus says that over half its fleet worldwide has parts produced by Chinese companies.

Boeing forecasts that its orders from China over the next 20 years will account for 3,400 new aircraft, or 12 percent of the total of 28,600 that Boeing expects to sell worldwide. At the end of 2007, 57 percent of the 1,180 commercial jetliners operating in China were Boeing aircraft, including those once produced by Boeing's merger partner, McDonnell Douglas Corporation, and 33 percent were from Airbus.

According to Boeing's Web site,

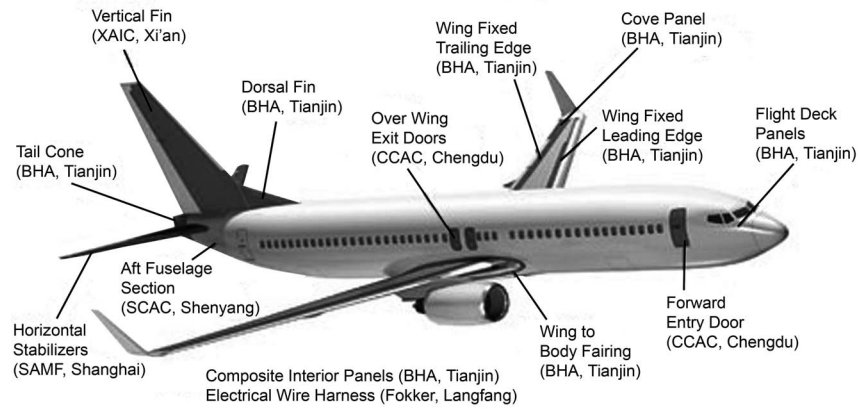
Boeing is pleased to have been invited to help Chinese companies develop skills, achieve certification, and join world aviation and supplier networks. China has an increasingly sophisticated and expanding part to play in the commercial

aviation industry and has a role on all of Boeing commercial airplane models—737, 747, 767, 777 and the newest and most innovative airplane, the 787 Dreamliner. China builds horizontal stabilizers, vertical fins, the aft tail section, doors, wing panels and other parts on the 737; 747 trailing edge wing ribs; and 747–8 ailerons, spoilers and inboard flaps. China also has an important role on the new 787 Dreamliner airplane, building the rudder, wing-to-body fairing panels, leading edge and panels for the vertical fin, and other composite parts. ... In cooperation with Chinese airlines, CAAC [Civil Aviation Administration of China] and industry, Boeing has provided enhanced professional training to more than 37,000 Chinese aviation professionals since 1993, including pilot techniques, flight operations, maintenance engineering, regulatory, air traffic management, executive management, airline management and airline marketing, manufacturing, quality assurance, finance and industrial engineering, at no charge to China.³³⁷

Relatively little is known about offset requirements, because they generally are between purchaser and supplier and frequently are not disclosed. Notes Owen E. Herrnstadt, director of trade and globalization at the International Association of Machinists and Aerospace workers:

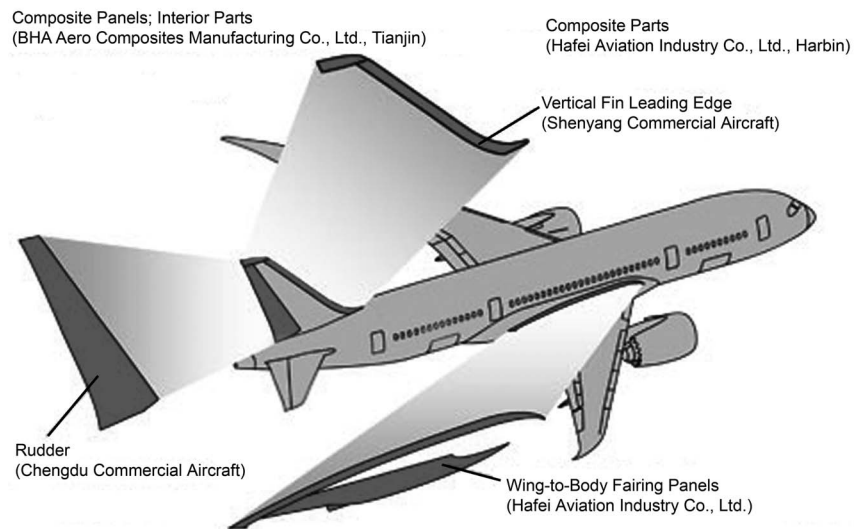
The inherent weakness in leaving the use of offsets virtually unregulated is obvious—private U.S. companies must compete with foreign companies that have the full support of their governments. If a sale means transferring production and/or technology, private companies are in a difficult position given that their interests do not always align with the national interest. They can be expected to maximize corporate returns, even through the use of offsets, which can deeply affect an industry as essential to the nation's economy and security as aerospace, can be detrimental to U.S. national interests.

China's Role in the Production of the Boeing 737NG



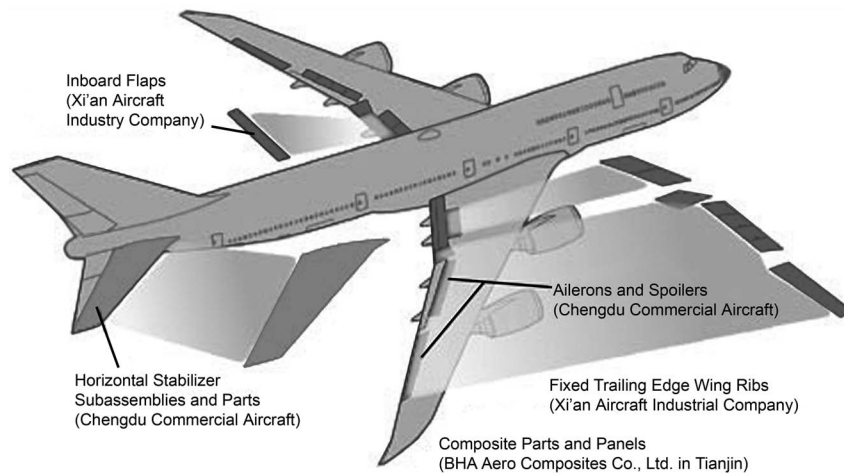
Source: The Boeing Company.

China's Role in the Production of the Boeing 787



Source: The Boeing Company.

China's Role in the Production of the Boeing 747-8



Source: The Boeing Company.

Conclusions

- China has been pursuing a government policy designed to make China a technology superpower and to enhance its exports. Some of its tactics violate free market principles—specifically its use of subsidies and an artificially low RMB value to attract foreign investment.
- Foreign technology companies, such as U.S. and European computer, aerospace, and automotive firms, have invested heavily in research and development and production facilities in China, sharing or losing technology and other know-how. Chinese manufacturers have benefitted from this investment.
- The U.S. government has not established any effective policies or mechanisms at the federal level to retain research and development facilities within its borders.
- China's trade surplus in advanced technology products is growing rapidly, while the United States is running an ever-larger deficit in technology trade. China also is pursuing a strategy of creating an integrated technology sector to reduce its dependence on manufacturing inputs.
- China seeks to become a global power in aerospace and join the United States and Europe in producing large passenger aircraft. China also seeks to join the United States, Germany, and Japan as major global automobile producers. So far as China competes fairly with other nations, this need not be a concern. But China's penchant for using currency manipulation, industrial subsidies, and intellectual property theft to gain an advantage violates international norms.

SECTION 4: A CASE STUDY OF THE LOCAL IMPACT OF TRADE WITH CHINA: SEAFOOD IMPORTS FROM CHINA INTO LOUISIANA AND THE U.S. GULF COAST, AND RELATED SAFETY ISSUES

“The Commission shall investigate and report exclusively on—
...

“ECONOMIC TRANSFERS—The qualitative and quantitative nature of the transfer of United States production activities to the People’s Republic of China, ... the impact of such transfers on United States national security, ... and the effect of such transfers on United States economic security and employment. ...”

China’s Dominant Role in Seafood Exports

Since its 2001 admission to the World Trade Organization (WTO), China has become the world’s largest exporter of seafood and the largest volume supplier of seafood to the U.S. market. This development is due, in large part, to China’s adoption of industrial fish farming and Chinese government policies that support the industry and encourage fish exports. At the same time, the U.S. seafood market has switched from relying on wild-caught fish taken from domestic waters to an overwhelming reliance on imported seafood, particularly in the case of shrimp, the most popular seafood in the United States. China is now the largest supplier of both shrimp and finfish to the U.S. market. China maintains the world’s largest fishing fleet³³⁸ and ranks as the world’s largest purveyor of wild-caught fish. Even more important for the U.S. market, however, China is the world’s largest producer of farmed fish.³³⁹ More than a billion pounds of Chinese seafood, valued at \$1.9 billion, were imported into the United States in 2006, much of the seafood from an estimated 4.5 million fish farmers and one million processors. In 2007, 23 percent of imported fresh and prepared fish came from China. One in five pounds of fish sold in the United States came from China.³⁴⁰

The challenge to the United States posed by Chinese fish imports is both economic and health related. The U.S. industry has responded to the increase in Chinese imports by filing formal unfair trade cases against Chinese exporters, with some limited success. Antidumping duties have been levied against imported shrimp and crawfish from China, but they have not stemmed losses in market

share or reductions in employment by the U.S. fishing fleet. Some U.S. producers have entered niche markets for specific species not available from China or East Asia, while others in the United States have switched from capturing or farming fish to simply retailing imported products. Nevertheless, the \$7 billion fishing and onshore industry supported by the Gulf of Mexico fishery has suffered extensive losses in income and employment. The Census Bureau's annual March 12 survey of the number of workers on Gulf Coast fishing boats found 7,477 in 2000 but only 5,472 in 2005, a decline of 27 percent.³⁴¹

The Commission held a public hearing in April 2008 in New Orleans to consider the effects of Chinese fish imports on the Gulf Coast economy and to examine health-related issues stemming from imported fish from China. The Commission also sought to determine whether U.S. regulatory agencies have the resources and procedures to respond adequately to the economic and health challenges posed by imported fish from China.

Americans have greatly increased their consumption of seafood over the past two decades, perhaps persuaded by studies showing that a diet of fish provides health benefits. Per capita consumption of seafood rose 30 percent between 1980 and 2006, to 16.5 pounds annually. This market increase has been entirely satisfied by imports. Indeed, the share of imported seafood has grown even faster than consumer demand and therefore has cut into domestic sales. In 1995, the U.S. market was split about evenly between imports and domestically caught and grown fish. But over the past decade, imports of seafood increased by 74 percent. By 2006, imports composed 83 percent of the nearly 5 billion pounds of edible seafood consumed in the United States.³⁴²

One of the primary determinants of China's growing dominance of the U.S. market is price. China's fish farming is supported by local and national government aid to fish farmers and processors, including subsidies for docks, cages, and fuel. Local and provincial governments arrange for low interest loans for fish farmers, and the national government maintains an undervalued currency that indirectly subsidizes exports. These factors, accompanied by the government's lax environmental and health controls on fish farming practices, have provided China's industry with considerable cost advantages over the American fishing fleet. While fish farming is more labor intensive than harvesting many wild-caught fish species, the Chinese method is less capital intensive and cheaper, after accounting for Chinese government subsidies for gasoline and diesel fuel. In addition, Chinese governments at local levels provide fish farmers a variety of other subsidies ranging from free access to reservoirs to low-cost loans for boats and engines.

All the subsidies, direct and indirect, had a considerable effect on the U.S. market. For example, catfish from Chinese fish farms began arriving in the United States in 2004, often selling for \$1.00 per pound less than the U.S.-farmed fish.³⁴³ As a consequence, the volume produced by U.S. growers quickly declined and hit the lowest level in 10 years with the 2007 harvest, according to Carole Engle, director of the Aquaculture Fisheries Center at the University of Arkansas, who testified at the Commission's April 2008 hearing.

The rise of industrial fish farming rather than any sudden expansion of fishing fleets accounts for most of the increase in U.S. imports, particularly from China. In just 25 years, world aquaculture production climbed from two billion pounds to 130 billion pounds in 2006.³⁴⁴ This production is centered in Asia, which accounts for 90 percent of the global aquaculture production, 70 percent of which is from China, according to United Nations (UN) figures.³⁴⁵ In 2006, the United States imported 1.2 billion pounds of seafood from China valued at \$1.9 billion and exported 500 million pounds of seafood to China valued at \$450 million.³⁴⁶ Some of the fish counted as U.S. exports to China, such as pollock and salmon that is wild caught in the Pacific Ocean, is processed in China and returned to the United States for sale.

When China's capture industry is added to its aquaculture output, it ranks as the world's largest producer of fish by far, accounting for a third of all fish production worldwide in 2001.³⁴⁷ The next largest producers, Peru and the European Union (EU), accounted for just 6 percent each. By contrast, the majority of fish sourced from domestic waters in the United States is wild caught with hooks or nets. U.S. commercial fishermen caught and delivered to the dock 4.14 million metric tons in 2000 and 4.3 million metric tons in 2006.³⁴⁸ The total U.S. fish harvest from all methods peaked in 1995 at nearly 5 million metric tons; it is projected to remain flat at around 4.5 million metric tons through 2025.³⁴⁹

The Economic Challenge from China's Seafood Industry

China's fish exports to the United States skyrocketed after China's admission to the WTO in 2001, as China's membership resulted in relaxed U.S. quota limits and lower tariffs. Exports of seafood from China had been growing over the previous decade at slightly less than 5 percent a year. After 2000, seafood exports from China to the United States grew at nearly a 21 percent annual rate. Data from the National Marine Fisheries Service show China exported \$2 billion of seafood to the United States in 2007, up from \$600 million in 2000, which represents a 233 percent increase.³⁵⁰ At the same time, China's share of the U.S. market for fish approximately doubled, from a 13 percent to a 25 percent share.³⁵¹

Shrimp represents a special case—and an instructive one—because a penalty tariff was imposed on shrimp from China and five other countries beginning in 2005, but for a variety of reasons it had relatively little positive long-term effect on the U.S. shrimp fleet. (These reasons are addressed in greater detail later in this section.) Figures show that volume imports of Chinese shrimp rose after 2000 but fell after penalty tariffs were imposed in 2005. The initial increase in Chinese imports from 2001 through 2004 had caused the wholesale price of shrimp received by U.S. shrimpers within the United States to fall. In the Gulf region, the inflation-adjusted dockside price fell 40 percent, from \$2.10 per pound for raw shrimp to \$1.26 per pound.³⁵² But after the penalty tariffs were imposed, Louisiana shrimpers did not see a wholesale price rise for raw, unprocessed shrimp, as they expected. The U.S. industry attributes this to cheating by foreign exporters and to faulty tariff collection procedures by U.S. authorities, among other issues.

At first, the penalty tariffs seemed to be working to the benefit of U.S. shrimpers. Frozen shrimp imports from China dropped from about 120 million pounds in 2004 to 25 million pounds in 2005, according to Harlon Pearce, chairman of the Louisiana Seafood Promotion and Marketing Board. The value of Chinese shrimp imports dropped from \$300 million to \$60 million in 2005. However, the average value per pound of Chinese frozen, peeled, and processed shrimp stayed flat, at below \$2.60 a pound, down from about \$3.10 a pound in 2001.

Meanwhile, Louisiana dockside prices of wild-caught shrimp—with the head still attached and the shell still on—stayed relatively flat, at \$1.20 a pound. Imported shrimp's major effect on the U.S. market was to drive the price lower and then to help keep it there, despite the tariff. The U.S. industry, particularly the Florida-based Southern Shrimp Alliance, the plaintiff in the antidumping case, has blamed this, in part, on the Chinese practice of transshipping shrimp through ports in other countries to escape the penalty tariff. For example, shrimp exports suddenly began arriving in the United States from Papua New Guinea, a country that had not previously exported any shrimp. Shrimp exports from Indonesia and Malaysia also showed large increases. Cambodia, which had exported no shrimp to the United States and had imported none from China, suddenly imported nearly 2 million pounds from China and exported more than 3.5 million pounds to the United States in the weeks after the preliminary Department of Commerce antidumping ruling against China in July 2004.³⁵³

Another factor in China's dominance in supplying farmed seafood to the world market is the government's policy to encourage production by providing subsidies to aquaculture operations. Dr. Engle, who recently returned from a fact-finding trip to Jiangsu and Hubei provinces in China, told the Commission that both the central government and local governments in China provide extensive grants to aquaculture operations. Jiangsu Province spent 1 billion renminbi (RMB) in 2006 in subsidies to fish farmers, while crawfish farmers received 6 million to 8 million RMB of that in construction grants, Dr. Engle said she was told. (Crawfish and catfish can be raised in the same ponds in sequential six-month periods.)

Fish farmers in China are eligible for a variety of grants reserved to promote "new technology," production of goods meant for export, and aquaculture. Some grants are directed specifically to support shrimp, tilapia, and catfish production for export. Some industrial fish farms that are state owned are leased or provided at no cost to tenant farmers. Farmers also are allowed to raise caged fish in rivers and reservoirs at no cost, Dr. Engle found. Hatcheries are all state owned and funded by the central and local governments. (Fish hatcheries in the United States are often owned or under contract to government to produce eggs or fingerlings, but they are intended to restock ponds and rivers for sport fishermen rather than for commercial operations.) In China, fish haulers are exempted from paying tolls on highways. In some cases, pharmaceutical companies, from which fish farmers obtain antibiotics and other chemicals, are located in nearby industrial parks established by the government.³⁵⁴

According to the Southern Shrimp Alliance, a Florida-based organization of Gulf and Atlantic Coast shrimpers, the Chinese government at all levels spent more than \$652 million from 2000 to 2005 in subsidies to fish farmers in an effort to achieve an annual growth rate of 9.3 percent for exports of farmed fish.³⁵⁵ China lately has begun to subsidize fish processing operations as well, according to the alliance.

Creating a Niche Market in Wild-caught American Shrimp

U.S. fishermen and processors have struggled to compete with subsidized imports from China in various ways. Kim Chauvin, who co-owns the Mariah Jade Shrimp Company in Chauvin, Louisiana, tied up one of her three steel-hulled shrimp boats and entered the retail shrimp business. Through the company's Web site, she sells the wild-caught shrimp harvested from the Gulf by her remaining two boats.

For Ms. Chauvin, the vertical integration strategy has been a qualified success. As news accounts proliferate about safety problems with Chinese imports, she has joined some Gulf region shrimpers who have created a niche market for higher-quality, higher-priced shrimp, sometimes emphasizing shrimp variants predominantly found in the Gulf.*

Unfortunately, said Ms. Chauvin, some restaurants and stores are fraudulently entering into the niche market by falsely implying that their foreign, farm-raised shrimp is actually from the Gulf. For example, this sometimes is done by putting a large photo of an American shrimp trawler on the package. Ms. Chauvin also insists that Chinese fish are unfairly priced. "We are not against imports coming into this country," she said. "It is not fair for our U.S. fishermen to have to adhere to so many explicit laws [on wages and environmental safeguards] and for [foreign fish] to be coming into this country when it's being subsidized."

Wild American Shrimp, Inc., an industry marketing association through which Mariah Jade sells its shrimp, also received a \$3.6 million start-up grant in 2004 from the National Oceanic and Atmospheric Administration (NOAA). Despite Hurricanes Rita and Katrina in 2005, which reduced Mariah Jade's customer base, "We have gone from almost losing everything we had to staying afloat and helping other people now stay afloat with us," Ms. Chauvin told the Commission.

The U.S. catfish industry, the largest aquaculture industry in the United States, centered in Mississippi, Arkansas, and Alabama,

*Ms. Chauvin, who is a member of the official Louisiana Shrimp Task Force, has been among those advocating increased funding for the U.S. Food and Drug Administration (FDA), which under law is responsible for ensuring seafood is healthy for human consumption, so that the FDA can expand its inspection and testing system. As a member of the Southern Shrimp Alliance, she supported the successful antidumping case against imports of Chinese shrimp in 2005. Much of the penalty tariffs levied against Chinese shrimp were distributed to the alliance, as the official plaintiff in the case. Finally, Ms. Chauvin also is a member of Wild American Shrimp, Inc., a marketing organization associated with the alliance.

also has struggled to compete with subsidized imports from China. Since 2003, production has dropped 25 percent, as Chinese catfish began entering the U.S. market.³⁵⁶ Said Dr. Engle:

Chinese catfish are being sold for about a dollar a pound less than U.S. catfish fillets of the same size. However, feed costs in China are two to three times higher than feed costs in the United States. And so these lower costs of [Chinese] fillets in the United States are not due to lower costs of production in China. I've spent time developing budgets and costs of production, and I cannot see how it is profitable for the Chinese farmers to raise catfish even before their price declines of last year ... unless you account for the subsidies.

On the other hand, some Americans who have adapted to the dramatic influx of imported fish have seen their business increase. Matthew Fass, a fourth-generation waterman-fish seller from Newport News, Virginia, is an example. Mr. Fass, president of Maritime Products International, told the Commission that he has taken an entirely different path toward profitability. While his great-grandfather began the business as an oysterman in Virginia's Tidewater area, Mr. Fass now is a distributor of imported fish, which he insists is of high quality. "As the industry has changed, so too has our business," he said. "Imports from China specifically have played an essential role in helping American consumers at all income levels enjoy the health benefits of a variety of seafood."³⁵⁷ Mr. Fass estimated that more than 95 percent of the fish he sells is imported. He also noted the large quantity of seafood caught in U.S. waters, including pollock, flounder, perch, and salmon, "brought to China for further processing into filets or other forms and then sent to the U.S. and other places for consumption."

This competition between imports and exports is being played out across America and in many industries in a process some economists have labeled "creative destruction."³⁵⁸ Some efforts fail. Others succeed. In free enterprise, the market decides. But what the Chinese government practices is not free enterprise. The Gulf Coast fishing industry is but "a drop in the bucket," when compared to the overall economy, Walter R. Keithly, a professor at the Center for Natural Resource Economics and Policy at Louisiana State University in Baton Rouge, told the Commission. But Dr. Keithly went on:

Having said that, though, we have local communities that are highly dependent on the seafood industry and it is a way of life that is quickly being lost by many of our commercial fishermen. The financial viability of the Gulf of Mexico seafood industry has been on the decline for more than a decade now. ... And there are no signs that there's going to be a reversal in that trend anytime soon. ... While the increasing import base is not the sole reason for this decline, it is a contributing factor. Furthermore, China is a large exporter to the United States of certain seafood products that compete with the harvest from the Gulf of Mexico. ... Of all the Gulf of Mexico commercial fisheries, the shrimp industry has been the most severely impacted from

*the increasing import base. The impact is wide in scope, ranging from a significant decline in the number of harvesters, probably in excess of 50 percent, to a large consolidation in the processing industry.*³⁵⁹

The Safety Challenge from China's Seafood

For American consumers and some retailers, the benefits of imported seafood—increased availability at a lower price—compete with its health risk. Abundant and inexpensive seafood from China, particularly frozen shrimp, has helped expand consumption of fish in restaurants and at dinner tables around the country. Consumers, who may have passed by the grocery store seafood case because of high prices, are now lining up to take a number. But as several witnesses explained at the Commission's New Orleans hearing, there is a downside to importing fish from China: Consumers of fish imported from China may be jeopardizing their health.

Farming methods in China include the use of certain chemicals and pharmaceuticals that are banned in the United States because they are carcinogenic or otherwise endanger the health of people who eat them. (Greater detail on these substances is provided later in this section.) Often these chemicals are used by farmers in China to fight outbreaks of disease among fish that are grown in close proximity to one another, an unsafe industry practice that very quickly can spread such bacteria as salmonella and listeria as well as fungal, viral, and parasitic infections.

Water used to grow farmed fish also poses a potential problem. A third of the length of all China's rivers and three-fourths of its lakes are "severely polluted," according to a 2007 study by the Organization for Economic Cooperation and Development (OECD), undertaken at China's request. The report says that "a majority of the water flowing through China's urban areas is unsuitable for drinking or fishing."³⁶⁰

Food & Water Watch, a Washington, DC-based environmental organization, quotes World Health Organization figures showing that only 48 percent of Asia has access to sewage treatment plants and that fish farmed in waters containing untreated sewage pose a special danger to consumers.

*In China, the global leader in aquaculture, 3.7 billion tons of sewage is discharged daily. As of 2005, only 45 percent of China had access to sewage treatment plants. The untreated sewage runs freely into rivers, lakes, and coastal water, some of which are used for aquaculture production. Furthermore, producers tightly cram thousands of finfish and shellfish into their facilities to maximize production. This generates large amounts of waste, contaminates the water, and spreads disease, which can kill off entire crops of fish if left untreated. Even if a disease does not kill off all the fish in an aquaculture facility, remaining bacteria, such as Vibrio, Listeria, or Salmonella, can sicken people who eat the fish.*³⁶¹

Heavy metals in the water used to raise fish also pose a significant problem.*

*Heavy metals persist in all meat (in China) but particularly in fish. Mercury from China's coal-fired power plants is a high-profile example of how water pollution links to food safety. Consuming fish is the most common way to ingest mercury because it accumulates in the flesh of the animal. Mercury exposure can cause miscarriages, harm brain development, and damage the endocrine system, kidneys, and other organs. Statistics on mercury in Chinese fish are scarce, but Chinese coal is believed to be responsible for mercury contamination in fish as far away as the western United States, pointing to a strong possibility of mercury contaminated fish within China.*³⁶²

The responsible solution for the problems caused by overcrowding would be to reduce the concentration of fish in a particular area and clean fish waste and uneaten fish feed from the water. However, China's 4.5 million fish farmers³⁶³ often take a less responsible approach, according to the testimony at the Commission hearing. Typically, Chinese farms crowd as many fish as possible into ponds, holding pens, or cages. To forestall epidemic diseases due to overcrowding and to compensate for the use of water often polluted by agricultural fertilizers, industrial wastes, and partially treated sewage, the Chinese farmers, often with little knowledge of safe fish farming practices or the downstream effects of various chemicals, and with even less expertise in treating sick fish or forestalling epidemics, simply toss into their ponds handfuls of chemicals on the unscientific advice of other fish farmers. They add antibacterial, antiviral, and antifungal agents, including malachite green, gentian violet, and chloramphenicol, all considered potential carcinogens. Antibiotics difloxacin and ciprofloxacin, both approved for human use, also are frequently used to treat the fish, which scientists warn will reduce the effectiveness of these antibiotics in fighting diseases in humans.

Some of the chemicals used are banned in China; in other cases, they are allowed in China but banned in the United States. Dr. Engle testified that on a research trip to China in late 2007, she found evidence that Chinese pharmaceutical companies provided and labeled for aquaculture use various antibiotics not approved for use in the United States. "It is clear that there is little understanding that ensuring a safe food supply requires zero tolerance for these types of antibiotics and compounds in our food supply," Dr. Engle said.[†]³⁶⁴

Several other peculiarities of Chinese fish farming, coupled with the Chinese government's lax methods of inspection and deficiencies in the American import inspection and verification regimes, have left U.S. consumers vulnerable to harm from contamination and unauthorized chemicals. For example, even if contami-

* Mercury contamination in China was also addressed in the Commission's August 13, 2008, hearing and is covered in chapter 3, section 1. Some 10 percent to 30 percent of the mercury contamination in the United States is attributed to Chinese sources, according to one estimate.

[†] In the United States, the Food and Drug Administration (FDA) regulates veterinary drugs used in aquaculture. Among the approved drugs are Formalin, hydrogen peroxide, Oxytetracycline hydrochloride, Oxytetracycline HCL, and Florfenicol.

nated fish are discovered after processing and inspection, Chinese authorities have little ability to trace the tainted fish back to their origin. Many of the fish grown in China are from small ponds or tidal pools on farms or along rivers, lakes, or reservoirs. China's one million processors, 70 percent of whom employ fewer than 10 workers, then aggregate those fish without documenting their origin, which makes it difficult for authorities to trace contamination back to a single source.³⁶⁵

The Chinese central government has placed some regulatory controls on fish farming practices but expends little effort on testing fish at wholesale or retail stages. Nor does the government in China disseminate information on safe fish-handling practices to Chinese farmers. Local governments, in particular, emphasize promotion over regulation. The U.S. government does not require fish farmers and processors in other countries to adhere to standards of safety equivalent to those in effect in the United States.

U.S. Seafood Inspections Inadequate

Congress, the Food and Drug Administration, and the Consumer Product Safety Commission have been struggling throughout 2007 and 2008 to determine the proper regulatory response to a series of dangerous and adulterated imports from China, including, among others, wooden toys contaminated with lead, tainted pharmaceuticals such as the blood-thinner Heparin, pet food laced with fire retardant, faulty automobile tires, and toothpaste contaminated with poisonous antifreeze. Most recently, Chinese dairy products have been discovered to be adulterated with melamine, an industrial solvent. Some of the melamine-contaminated milk and milk powder has been exported and discovered in processed food products. Candy, flavored drinks, instant coffee, tea, and powdered instant coffee creamers sold in the United States under certain brands have been identified by the FDA as having been contaminated with melamine from China as of the date this Report was completed.³⁶⁶

The FDA also has been working with the National Oceanic and Atmospheric Administration (NOAA), an agency of the U.S. Department of Commerce that shares some responsibility with the FDA for fish safety. The agencies recognize that an inspection regime that will better serve U.S. consumers is needed now that imported seafood raised in Asian fish farms has come to dominate the U.S. market, largely displacing wild-caught domestic varieties. The challenge just from China is enormous: Nearly a billion pounds of Chinese fish were imported in 2007.

The FDA physically inspected less than 2 percent of all imported fish shipments to the United States between 2003 and 2006 and refused entry to just one of every 476 shipments in 2006.³⁶⁷ (Refusals of Chinese fish imports averaged 75 a year between 2002 and 2006; in 2006 the number of refusals was 309.)³⁶⁸ In 2006, 1.3 percent of imported fish shipments received a sensory examination—typically by sight and smell—and just 0.59 percent were laboratory tested, a 33 percent decline from three years before.³⁶⁹ In 2007, the FDA processed 868,000 “entries of imported seafood,” performed 14,000 physical examinations, and collected somewhat more than

6,000 samples of domestic and imported seafood for analysis at FDA field laboratories (a rate of physical examination of imports of just 1.6 percent).³⁷⁰

In one contrast to those figures, the meat and poultry system of the U.S. Department of Agriculture (USDA) requires that all imports of meat, poultry, and eggs be inspected when they enter the United States. The USDA allows only 34 countries to export meat and poultry to the United States, and those countries first must institute a meat and poultry inspection system USDA adjudges to be equivalent to its system in the United States.³⁷¹ (The USDA has not certified China to export meat to the United States. Congress by law has directly blocked imports of poultry from China. The FDA has no similar certification authority for fish that would allow it to block all seafood imports from a particular country.)

The European Union's inspection rate for seafood is nearly 10 times higher, and Japan's rate is more than five times higher, than the U.S. inspection rate. The European Union inspects 20 percent of fish imports, while Japan tested 12 percent of all seafood in 2005, according to figures compiled by Food & Water Watch.³⁷² Europe banned imports of Chinese shrimp entirely from January 2002 to July 2004 after detecting one prohibited antibiotic, chloramphenicol, which also is prohibited by the United States, Japan, Australia, and Canada.³⁷³ The United States did not test Chinese shrimp imports during this period for chloramphenicol contamination and therefore did not ban any shrimp for violating the prohibition.

Hong Kong's seafood import procedures also starkly contrast with those of the United States. Hong Kong, with seven million inhabitants, imports almost all its food. In 2006, it sampled 64,000 food imports for chemical and microbial contamination. Hong Kong also sends inspectors to Chinese farms and factories to certify their procedures. Only mainland fish farms certified safe by Hong Kong inspectors can export to Hong Kong. The fish farms also must certify that no antibiotics or fungicides are present in the fish and ship the fish in sealed containers to prevent mixing with unregistered fish.³⁷⁴

By most accounts, the FDA's import inspection regime for fish was instituted in an era that predated the globalization of the food supply. "The FDA . . . is heavily reliant on self regulation amongst U.S. processors and importers," according to Drew Thompson, director of China studies at the Washington, DC-based Nixon Center. "Primarily focused on a domestic agenda, the FDA and USDA are ill-equipped to police international food exporters. While the USDA has some staff posted abroad, the FDA has no staff stationed overseas and few staff with the necessary language skills and cultural knowledge to effectively inspect overseas factories and their shipments destined for U.S. ports."³⁷⁵ The FDA readily admitted in Congressional testimony that it often has "very limited information regarding conditions under which most food is produced in foreign countries."

Since signing a preliminary memorandum of agreement with China in December 2007, the U.S. Department of Health and Human Services has been seeking authorization from Beijing and funding from Congress to place eight FDA inspectors in China.³⁷⁶

At the time this Report was completed, funds were available and the FDA was proceeding with preparations to place the eight FDA inspectors in China, one of whom has been hired. According to the FDA, the U.S. embassy in Beijing still is negotiating with Chinese officials to determine the authority the U.S. inspectors will have, but their responsibilities likely will include training Chinese fish inspectors.

While meat inspectors from the U.S. Department of Agriculture have travelled to many countries to document foreign regulatory controls on farm herds, slaughterhouses, and distribution and transportation facilities, the FDA, which has primary jurisdiction over seafood, has few similar procedures. Yet, even placing inspectors in China is not the answer, FDA Deputy Director of Food Safety Donald Kraemer told the Commission.

We have recognized that our present system of looking at entries at the time that they're offered for entry into the United States is, in essence, the little Dutch boy with his finger in the dike. We can't do enough at that point. So our effort and the people that we would put in China would be to audit their system as a much more efficient way of having control over the entries . . . we couldn't possibly inspect all of the food producers. China has something on the order of half a million food producers. Even if we put eight people in China, we couldn't get to [all the food producers] for hundreds of years. So we have to rely on the Chinese system. But we have to verify the adequacy of their system by auditing it, which is what our purpose would be.³⁷⁷

Nevertheless, placing U.S. seafood inspectors in China is one of the U.S. goals in implementing the memorandum of agreement between the governments of the United States and China. The agreement initially was a product of the Strategic Economic Dialogue, a continuing biannual, ministerial-level exchange between the United States and the People's Republic of China governments, and of follow-up talks between the U.S. embassy in Beijing and the PRC Ministry of Foreign Affairs. In the case of seafood exports, the preliminary agreement would create a verification and electronic certification program allowing the FDA to monitor the Chinese fish inspection system rather than allowing FDA inspectors free rein to visit fish farms and production facilities, the methodology employed by the USDA in its meat inspection program in the 34 countries authorized to export meat and poultry to the United States.

The FDA would continue to monitor, inspect, and test Chinese seafood entering the United States and could opt out of the memorandum of agreement if inspections in the United States showed that China's domestic inspection system failed to improve the safety of Chinese fish exports.³⁷⁸

The memorandum of agreement provides for information sharing and contains promises by the Chinese government to inspect Chinese plants more closely and to report within 48 hours on possible violations that could pose a health or safety risk. In addition, it requires Chinese producers to submit to yearly inspections by Chinese authorities. The agreement also promises FDA inspectors better access to Chinese facilities. (FDA inspectors were denied visas

in 2007 when they initially sought to inspect Chinese pet food factories for the presence of melamine, a fire retardant that can be added to some foods to falsely boost tested protein levels.) However, under the terms of the agreement, Chinese authorities will control the movements of FDA inspectors, whose access will be at the discretion of the Chinese government.

For ensuring seafood safety within the United States, the FDA relies on a system of risk prevention controls it has labeled the Hazard Analysis and Critical Control Points. This program requires domestic fish processors to prepare site- and product-specific safety plans, determine where potential safety hazards are likely to occur, and describe how the expected hazards will be controlled. Importers need only verify to the FDA that suppliers of their foreign products are in compliance—that they have the required safety plans.³⁷⁹ The FDA essentially must rely on a system of self-monitoring and self-regulation by Chinese producers and processors. Only when the FDA determines an exporter repeatedly has violated standards can the agency require a higher level of certification. But that step requires inspection of fish imports, something that occurs in less than 2 percent of shipments from abroad.

Press coverage of safety and health problems from a variety of imported consumer goods from China in 2007 led to heightened public awareness and action by state authorities and the FDA. In April, Alabama banned Chinese catfish sales after state inspectors found banned antibiotics. Wal-Mart subsequently removed all frozen catfish fillets from its shelves. In May, Mississippi took similar action against Chinese catfish. By June 2007, the problem of contaminated fish from China was considered so grave that the FDA instituted an “import alert” affecting all Chinese shrimp, catfish, dace, basa, and eel, based on tests of multiple shipments of these species showing they had been treated with veterinary medicines.

Under the import alert program, importers must demonstrate by third-party testing that their shipments are free of banned chemicals and spoilage. An importer able to demonstrate that five consecutive shipments are clean can apply to be exempted from the import alert, and its product can be imported under normal rules. While the FDA had applied import alerts against individual Chinese shippers in the past, an import alert on shipments of five species from all Chinese shippers marked a large increase in the surveillance effort.³⁸⁰ However, it is important to note that instituting an import alert does not mean that the FDA has tested the seafood for chemicals that typically pollute China’s rivers, such as heavy metals other than mercury and organic wastes.

Even at U.S. borders and within the United States, the FDA lacks the authority to take actions necessary to protect consumers from contaminated seafood. For example, the FDA in some cases is unable to seize and destroy diseased or contaminated seafood imports even when they are discovered at the border. Current regulations require that seafood determined to be hazardous to humans be returned to the importer, if requested. This can lead to the shipment’s eventual reimportation to and sale within the United States.³⁸¹ Several witnesses at the Commission’s New Orleans hearing described the practice of “port shopping,” whereby a shipment of seafood rejected at one port is resubmitted at another U.S.

port with the hope it will be admitted as a result of inadequate inspection. The lengthy amount of time it often takes the FDA to post rejection notices on its Web site and to notify other U.S. ports—348 days on average—contributes to the port shopping problem.³⁸²

Consumers Union Food Policy Initiatives Director Jean Halloran told the Commission that

FDA or another federal agency with appropriate expertise, such as NOAA, should establish a federally-supervised system of independent third-party certification, similar to the Underwriters laboratory [sic] certification. ... The FDA should have exclusive authority to recall contaminated food. ... And FDA should be able to condemn and destroy food that poses a serious safety hazard at the border, not just send it back for reconditioning and possibly coming through a border where they might miss the shipment or have less vigilant oversight.

The FDA began a rule-making procedure in 2002 to address this issue by requiring that seafood rejected for entry into the United States bear a stamp or marking indicating it was rejected before it was returned to the importer. But the FDA later withdrew the rule due to a conflict with a similar rule-making procedure by the Department of Homeland Security. The FDA resumed its attempted rule-making on the issue of marking in September 2008. Importers have suggested that any mark applied to rejected seafood be applied with invisible ink.³⁸³ A Senate bill that would have ended the practice of port shopping by allowing the FDA to seize contaminated or spoiled imported fish was not acted upon in 2008.³⁸⁴

The testimony highlighted other deficiencies. For example, the FDA lacks the authority to order a mandatory recall for fish. Nor can the FDA block an import even if it is notified by Chinese authorities that the fish product has violated Chinese certification procedures. The FDA has sought such authority from Congress, but as of the publication of this Report, Congress had not enacted legislation to provide it, despite extensive hearings in the House and legislation introduced in both chambers.³⁸⁵ In addition, the FDA lacks the authority to inspect and certify the independent laboratories that are testing fish from China under the special import alert. The FDA also has been seeking this authority without success, according to testimony from the FDA representative.³⁸⁶ While FDA inspectors may visit plants in China at the invitation of Chinese authorities, the FDA cannot certify Chinese plants or even China's inspection regime. FDA deputy director of food safety Donald Kraemer explained to the Commission: "We do not have the authority to require that a system—the Chinese system, for example—be certified before products from that country can come into the U.S., which is the case with USDA with meat and poultry. It is not the case with FDA-regulated products."³⁸⁷

The ease with which uninspected seafood from China enters the United States has had a pronounced effect on domestic seafood producers. According to John Williams, executive director of the Southern Shrimp Alliance,

It is now widely known that the FDA is broken. Worst of all, the FDA does not require foreign producers, including China, to demonstrate equivalence with U.S. food safety standards. Instead, the FDA relies solely on border inspection of imports, which covers about one percent of all FDA-regulated imports. By contrast, Canada, Japan, the EU, and even our own [U.S. Department of Agriculture] all do much more to protect the safety of food for consumers. The mix of [Chinese] shrimp overproduction and lax U.S. enforcement has led to a flood of cheap and contaminated Chinese shrimp imports to the U.S. market. For example, when the EU banned all Chinese shrimp imports in January of 2002 because of contaminated shrimp, exports were diverted from the EU to the United States. In a single year, from 2002 to 2003, Chinese shrimp exports to the United States increased 30 percent. For some more perspective, in 2000, Chinese shrimp imports to the United States totaled around 38 million pounds. By 2003, these imports jumped to a high of 169 million pounds, more than four times the total in 2000. Not surprisingly, import prices plunged.

Country of Origin Labeling

Congress passed in 2002 a Country of Origin Label (COOL) requirement for beef, lamb, pork, fish, peanuts, and perishable commodities. Under pressure from food processors and retailers, Congress delayed implementation three times, with the exception of fish, which must be labeled under current law. The fish-labeling requirements, however, contain significant loopholes: First, the requirements only apply to fish sold in supermarkets and other stores that do a large volume of business in vegetables.³⁸⁸ Fish markets, which sell 10 percent of the fish at retail in the United States, are exempt from the COOL requirements so long as they sell few or no vegetables. “This was, I think, at the time, a drafting error; but it’s now ... a permanent loophole in the [law],” Ms. Halloran told the Commission. Others interpreted the provision differently—as an effort to exempt small retailers from the provisions, for example.³⁸⁹ The loopholes in the COOL regulations are especially significant given that more than two-thirds of FDA’s inspection refusals from 2003 to 2006 were of fish that were exempt from the COOL requirements, according to a Food & Water Watch analysis of FDA data.³⁹⁰

Other loopholes in the law have strange effects. Fish that are processed or “substantially transformed” in the United States can be labeled as being from the United States and sold in a grocery store as such even if they originally were imported from China. For example, fish from Chinese fish farms can be labeled as originating in the United States if smoke flavoring is added within the United States. If shrimp from China is cleaned and breaded in the United States, it need not be labeled as foreign. Shrimp that is cooked in the United States “magically becomes not imported.”³⁹¹ So consumers concerned about the use of veterinary medicines, antibiotics, and contamination from unsafe water and fish farming practices in China cannot depend on labeling to help them choose.

Restaurants also are exempted by the federal law and so need not reveal the origin of the fish on the menu. American catfish farmers complain that Chinese exporters sometimes bill their product as “Mississippi channel catfish,” because some fish farms in China raise fingerlings hatched in Mississippi. Adding to the confusion, the law makes USDA responsible for writing and enforcing the COOL regulations on fish sales, even though the FDA is responsible for seafood safety.

There is not unanimity among Americans on these issues. Mr. Fass, the Virginia distributor of imported fish, insists that the use of antibiotics “is part of food production all over the world, including the United States, including the United States seafood industries, such as with domestic catfish production.” In addition, he testified, state testing has been “discriminatory and inconsistent with federal oversight and testing methodologies.” He opposes country of origin labeling because it “fosters more uninformed decisions, rather than informed purchasing decisions by the consumer,” and “emergency health decrees” that cause needless “market volatility.” The antidumping cases on imported fish, he said, resulted in “the formation of cartels, an increase in market volatility, a decrease in new product development, a lack of domestic reinvestment, and incentives for poor quality.”³⁹²

Flaws in Antidumping Penalties Reduced Effectiveness

Shrimp

For a variety of reasons, antidumping penalties against imported Chinese shrimp and crawfish have failed to accomplish their purpose: to enable the U.S. industry to compete by compensating its companies for the economic effects of unfair Chinese trading practices, usually defined as selling below the cost of production in order to deprive another competitor of market share.

The antidumping penalties imposed on frozen or canned warmwater shrimp were first levied in 2004 against six countries: China, Brazil, Ecuador, Vietnam, India, and Thailand. The largest of the exporters, China, received by far the highest penalty tariffs. Imports of shrimp from these six countries declined from 800 million pounds in 2003 to 700 million pounds in 2004. But by 2006, the total imports to the United States from these six countries shot back up to their 2003 levels, a typical pattern in antidumping cases.³⁹³ Shrimp imports from China peaked at 180 million pounds in 2003 and since then have averaged around 125 million pounds, while U.S. shrimp imports from several of the other five nations, on which extremely low tariffs were imposed—notably Ecuador and Thailand—actually increased.^{394 395}

One reason the penalty tariffs largely failed to accomplish their objectives is that many of the penalty tariffs on Chinese shrimp simply went uncollected. Senator David Vitter of Louisiana, who testified at the Commission’s April 2008 hearing in New Orleans, cited figures from U.S. Customs and Border Protection of the Department of Homeland Security: in 2007, \$200 million in duties on imported shrimp and \$80 million in duties on imported crawfish went uncollected. Between 2002 and 2004, Customs collected only \$25.5 million of about \$195.5 million in antidumping duties owed on crawfish, with about 90 percent of these duties owed on mer-

chandise imported from China.³⁹⁶ Because the added duties are meant to raise the price at retail of the target import, not collecting the duties increases the likelihood that the price of the import will remain artificially low. This may be the case with shrimp and crawfish. Figures cited above for the market price of shrimp before and after imposition of antidumping duties show little variance.³⁹⁷

In addition, as noted above, transshipment may have been used by Chinese shrimp exporters to evade duties—the shrimp may have been sent through ports in other countries and therefore may have been permitted to enter the United States duty free. Said Dr. Keithly: “The increase in U.S. imports from non-named sources [in the anti-dumping complaint] was widespread and included many of the Asian countries not included in the investigation. Evidence suggests, furthermore, that much of the increase reflects trade diversion rather than other factors, such as increased cultured shrimp production in these countries.” John Williams, executive director of the Southern Shrimp Alliance (SSA), noted that Papua New Guinea had never exported shrimp to the United States before January 2006 and then exported three million pounds in six months. Citing U.S. Customs and Border Protection figures, Mr. Williams noted that 54 different importers brought in over \$58 million in Chinese shrimp intentionally mislabeled as Indonesian-caught shrimp in order to avoid \$65 million in antidumping duties. When this subterfuge was halted, much of that traffic then switched to transit through Malaysia, Mr. Williams said.

Some Chinese shrimp products may have escaped penalty tariffs because they were excluded from the dumping order. For example, “dusted shrimp” was excluded from penalty tariffs. Dusted shrimp is shrimp that is beheaded, deveined, washed, and dusted with rice powder or wheat powder as a preparation for breading. But, according to Mr. Williams, the dusted shrimp, after duty-free entry into the United States, is sometimes mislabeled and sold as packaged shrimp. For example, 5.5 million pounds of dusted shrimp were imported from China in the four years ending with 2004. After the antidumping duties took effect on undusted shrimp, dusted shrimp imports jumped to 45.2 million pounds in the three years between 2005 and 2007.³⁹⁸

Dr. Keithly told the Commission:

Prior to 2000, U.S. imports of breaded shrimp were negligible, or generally less than one-million [sic] pounds annually. From 2000 to 2003, U.S. imports of this product increased from about four million pounds to 19 million pounds. This increase suggests that imports of this product would have continued to increase even in the absence of antidumping duties. However, there is little doubt that antidumping duties accelerated the growth of U.S. imports of breaded product. Specifically, by 2005 U.S. imports of breaded shrimp had increased to 98 million pounds and approached the 110 million pound mark in 2006. The overwhelming majority of increased imports of this product are of Chinese origin which now account for about 80 percent of the total. Imports of dusted shrimp, according to SSA estimates, have increased from less than 100,000 pounds in 2003 to more than 26 million pounds in 2006. Virtually the

*entire dusted product is from China and it is the contention of the Southern Shrimp Alliance that much of the product is imported in this form simply to circumvent duties.*³⁹⁹

In any event, the future for the Gulf Coast shrimpers looks grim. “In essence, we are now back to where we were prior to the [dumping] investigation,” said Dr. Keithly. “Duties appear to have provided only marginal and probably only short-term relief to the domestic shrimp industry. In the absence of significant income growth in Asia, further increases in cultured shrimp production will result in additional product being sent to the U.S. and a further suppression in the Gulf of Mexico dockside shrimp price.”*

Crawfish

The U.S. antidumping penalty tariffs on crawfish date back to the late 1990s, when tariffs on frozen crawfish tail meat from China were set at an average of 125 percent, a relatively high penalty. But even that level was not high enough, according to Schuyler Richard Porche, a political economist at Louisiana State University who has studied the crawfish case. “In any industry, whether we’re talking about shrimp or crawfish or if it was steel imports in the 1980’s, if we look at some of the older cases, the reality is that foreign producers are still able to export to the United States their products and dominate the domestic industry,” he told the Commission. The reason, added Dr. Keithly, is simple: “Importers have been able to evade the duty.”

China managed very quickly to dominate the market for frozen crawfish tail meat—the product commonly used in restaurant etouffée, gumbo, and jambalaya. Shipments from China appeared first in 1994, and by 1997 China had captured 87 percent of the import market. Sixty-four percent of imports over the 1994 to 1996 period had first-sale destinations within Louisiana or its border states. Imported product wholesale prices were approximately half the price of domestic tail meat. Louisiana crawfish farmers and trappers responded with an antidumping complaint, and the U.S. International Trade Commission and the Department of Commerce imposed the penalty tariffs in March 1997.

Stephen Minvielle, director of the 2,000-member Louisiana Crawfish Farmers Association, criticized the efforts to collect penalty tariffs on imported Chinese crawfish, estimating that less than 15 percent of the tariffs due were collected. Mr. Minvielle also criticized the distribution of the penalty tariffs among the plaintiffs in the case.† He told the Commission that he believed many of the payments should have gone to crawfish farmers, who tend to operate independently on a small scale. Instead, the payments went to

* Efforts to improve collection of antidumping duties on imported shrimp were set back in 2007 when the World Trade Organization ruled against the United States regarding a regulation requiring that bonds be posted to cover future tariff collections on shrimp. The ruling invalidated U.S. attempts to require 100 percent bonds be posted by U.S. importers, pending the determination of final dumping penalties on specific shipments of shrimp.

† Under “The Continued Dumping and Subsidy Offset Act of 2000,” also known as the “Byrd Amendment” after its sponsor, Senator Robert Byrd (D-W.Va.), the plaintiffs in a successful antidumping case are eligible to receive a portion of the penalty tariffs collected. This law was repealed in 2006 following a ruling by the dispute settlement panel of the World Trade Organization that the provision was in violation WTO rules. The U.S. program is being phased out as the remaining tariffs collected in previous years are distributed.

processors, many of them from outside Louisiana, who used the funds to expand capacity and to import and process other fish species that compete, in part, with crawfish. This kept the price of crawfish so low that many farmers chose not to harvest their crop simply because they could not make a profit.⁴⁰⁰ Louisiana crawfish farmers left 20 million pounds unharvested, a third of the potential harvest, he said.

NOAA Inspections: A Model for Imports?

The National Oceanic and Atmospheric Administration of the U.S. Department of Commerce runs a 52-year-old, voluntary fee-based inspection program for seafood sold in the United States. The program may serve as a market-based model for handling imported seafood, eventually benefitting U.S. consumers, foreign seafood exporters to the United States, and even the U.S. seafood industry. Even if the voluntary fee-based model is not adopted, the long-established inspection system, with some modifications, could serve as a starting point for a more comprehensive inspection program.

NOAA's program offers added layers of inspections and certification that exceed the rigor of the FDA's Hazard Analysis and Critical Control Points regimen. NOAA's laboratories and technicians offer continuous, on-site inspections during all production hours, certification of plant or vessel sanitation, quality inspections of individual shipments, fish meal inspection, and laboratory testing for contaminants as well as for species verification. NOAA's program also provides training and consultation to U.S. and foreign production facilities.

These services are provided by NOAA for a fee, generally \$70 per hour for a 40-hour week for its involved employees, an amount calculated to cover the cost of the program. NOAA estimates that the fee amounts to about a penny per pound of seafood.⁴⁰¹ The process allows the seafood to bear an official inspection label certifying its grade. Participants can use the inspection program as a marketing tool and advertise the enhanced safety of inspected seafood. In 2006, NOAA had contracts with 377 companies, including 50 that were foreign based. Although these participant numbers are small, the companies are among the largest seafood retailers, such as the restaurant franchise Red Lobster and the Marriott Hotel chain. The domestic companies participating in the program accounted for a third of all seafood consumed in the United States in 2006, or 1.9 billion pounds.^{402, 403} In addition, 23 companies from China have signed up to participate voluntarily in the program, in apparent response to the FDA's import alert on seafood from China.^{404, 405}

This more comprehensive NOAA inspection and certification method for fish approximates the USDA's treatment of meat and poultry. The USDA's Food Safety and Inspection Service is required to inspect all livestock and poultry before slaughter and to inspect meat and poultry as they are being processed.

Another option to enhance the safety of imported fish is the approach contained in the 2008 farm bill that places domestic and imported catfish under the jurisdiction of the USDA's Food Safety and Inspection Service. Implementation of this system in the United States is only in the planning stages. Once new regulations can be

written and approved, which is scheduled for December 2009, imported and domestic catfish may join meat and poultry as products subject to the USDA's inspection program. At that time, imports of catfish from China will be prohibited unless the USDA determines that catfish handling procedures used by Chinese farmers and processors are equivalent to those in the U.S. system. Presumably, catfish slaughtered in China would be monitored by Chinese health inspectors using criteria equivalent to those that will be required in the United States. In addition, each shipment of catfish imported into the United States, of any origin, would be inspected once again by the USDA, as is the current case with meat and poultry. At present, however, meat from China has not been cleared by the USDA for import into the United States.

Conclusions

- Many fish imports from Chinese aquaculture pose a health risk because of the unsanitary conditions of some Chinese fish farms, including water polluted by untreated sewage; fish contaminated by bacteria, viruses, and parasites; and fish treated with antibiotics and other veterinary medicines that are banned in the United States as dangerous to human health.
- Since 2001, China has become the world's dominant seafood exporter, due in large part to the government's promotion of industrial fish farming and the application of extensive government subsidies to the industry, including cheap fuel, outright construction grants, and free use of reservoirs and rivers.
- China is building an industrialized aquaculture sector through the use of extensive subsidies. In addition to producing food for domestic consumption, China has succeeded in creating a large aquaculture export industry as part of the government's overall industrial policy. As a result, China now is the largest volume exporter of fish to the United States, shipping more than one billion pounds annually, or one in five pounds of seafood eaten by Americans.
- Import-sensitive seafood product lines in the Gulf of Mexico region of the United States, such as shrimp, crawfish, and catfish, have suffered significant declines as a result of Chinese imports. Predicted long-term trends for the Gulf seafood industry are for flat or lower sales.
- Antidumping penalties imposed by the United States on Chinese shrimp and crawfish exports sold at below market value accomplished little of their intended effect. This appears to be due in part to transshipment by China through ports of other Asian nations in order to avoid the penalty tariffs and in part to the failure to collect the penalty tariffs.
- The U.S. Food and Drug Administration (FDA), with responsibility for monitoring imports of fish, does not yet have the authority or the personnel to inspect fish farms or processors in China nor to require and enforce regulation of Chinese aquaculture by the Chinese government equivalent to U.S. Department of Agriculture requirements for foreign meat and poultry

producers. The European Union, Japan, Canada, and even Hong Kong have more rigorous inspection regimes.

- The FDA lacks the authority to seize and destroy seafood shipments it has rejected for import into the United States. In some cases, the FDA must relinquish the fish to the shipper, which has led to a practice known as “port shopping” in which importers try to bring seafood rejected at one U.S. port through another one. The situation is exacerbated by the fact that it takes the FDA, on average, a year to notify U.S. ports of the potential for a banned shipment to attempt to enter at another port. The FDA also lacks the authority to order a mandatory recall of seafood or even to block imports of Chinese seafood at the request of Chinese officials.
- In an effort to forestall epidemic diseases due to overcrowding and to compensate for the use of water polluted by agricultural fertilizers, industrial wastes, and partially treated sewage, Chinese fish farmers, acting on unscientific advice, often add chemicals and pharmaceuticals to the water of their farms.
- The challenge of assuring that Chinese-produced seafood meets minimal quality standards is exacerbated by the fact that there is little traceability or accountability of the products of China’s 4.5 million fish farms and one million processors, most of them small operations whose products are aggregated by wholesalers and processors.
- The current form of a memorandum of agreement addressing seafood safety and related procedures that is being negotiated by the U.S. and People’s Republic of China governments would allow the U.S. Food and Drug Administration to monitor the performance of various Chinese government agencies in ensuring the safety of China’s seafood exports but would not provide the FDA with the authority to conduct its own inspections in China.
- The current Country of Origin Label regulations pertaining to imported fish are ineffective because of the many exemptions the law provides.

RECOMMENDATIONS

The U.S.-China Trade and Economic Relationship's Current Status and Significant Changes During 2008

- The Commission recommends that Congress urge the administration to employ more aggressively all trade remedies authorized by World Trade Organization (WTO) rules to counteract the Chinese government's practices. The Commission further recommends that Congress urge the administration to ensure that U.S. trade remedy laws are preserved and effectively implemented to respond to China's unfair or predatory trade activities so as to advance the interests of U.S. businesses.
- The Commission recommends that Congress enact legislation that will ensure an effective response to China's currency manipulation.
- The Commission recommends that Congress urge the administration to monitor the implementation and enforcement of China's updated antimonopoly and patent laws to ensure that they are consistent with its WTO commitments and do not discriminate against foreign suppliers. In particular, the Chinese laws should not be used to shield state-owned enterprises from equal enforcement of the laws, in compliance with China's WTO commitments.

China's Capital Investment Vehicles and Implications for the U.S. Economy and National Security

- The Commission recommends that Congress, within the context of its broader review of financial and corporate regulation, create enforceable disclosure requirements regarding the investments in the United States of all foreign sovereign wealth funds and other foreign state-controlled companies and investment vehicles. Such disclosure requirements, embodied in law or regulation, should include but not be limited to holdings in any public or private company, hedge fund, private equity fund, investment partnership, and/or investment vehicle.
- The Commission recommends that Congress direct the president to establish an interagency task force made up of the U.S. Department of the Treasury, the U.S. Securities and Exchange Commission, and other appropriate government agencies to identify and address the unique national security and economic challenges created by the lack of transparency and political character of China's sovereign wealth funds and government-controlled companies.

- The Commission recommends that Congress monitor the implementation and application of the Foreign Investment and National Security Act of 2007 and other appropriate laws and regulations with respect to the possibility of China's sovereign wealth funds acting in concert with other Chinese government-controlled companies and/or investment vehicles in a manner that technically fails to activate the established review process.

Research and Development, Technological Advances in Some Key Industries, and Changing Trade Flows with China

- The Commission recommends that Congress revive the Office of Technology Assessment, which for 23 years advised Congress on the social, economic, and environmental consequences of technology. The office should be reopened with the mission of advising Congress on technology policy and related issues, with specific attention to Chinese actions that affect U.S. technology interests.
- The Commission recommends that Congress prevent further cuts in information and statistical analysis by the chief economic departments and agencies of the executive branch and encourage the administration to improve its collection of information about China's impact on globalization.

A Case Study of the Local Impact of Trade with China: Seafood Imports from China into Louisiana and the U.S. Gulf Coast, and Related Safety Issues

- The Commission recommends that Congress grant the authority to the Food and Drug Administration (FDA) to identify and indelibly mark imports of fish that fail to meet the agency's standards of safety and to seize and destroy shipments of fish that foreign governments report have been contaminated or that subsequently are recalled in that country. The Commission further recommends that Congress pass legislation to institute within the FDA an import inspection and equivalency of standards program for fish similar to the meat and poultry inspection program administered by the U.S. Department of Agriculture.
- The Commission recommends that Congress authorize the National Oceanic and Atmospheric Administration (NOAA) and the FDA to test imported fish for any contaminants typically found in polluted waters, such as mercury, and to expand funding for research into the potential harm to consumers of fish contaminated with the antibiotics, pesticides, and industrial wastes typically found in unregulated Chinese aquaculture operations.
- The Commission recommends that Congress revise the Country of Origin Labeling regulations on fish to place the program under the jurisdiction of the FDA rather than the U.S. Department of Agriculture and to remove from the law's provisions the loopholes that exempt much of the fish sold in fish markets.
- The Commission recommends that Congress authorize the expansion of NOAA's fish inspection and certification program. By expanding this voluntary, fee-based system for imported fish, Con-

gress could enable consumers to be better informed, while encouraging American fish importers to follow the highest health and safety practices for their products—at little or no cost to taxpayers. NOAA's inspection and certification program approximates the U.S. Department of Agriculture's meat and poultry program.

- The Commission recommends that Congress pass legislation to enhance the authority of the Customs and Border Protection agency of the U.S. Department of Homeland Security (DHS) to collect penalty tariffs in antidumping cases. Exporters in China have been able to circumvent such duties by transshipping through third countries not covered by antidumping orders, while importers have used a variety of means to escape paying the duties.

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118. **The World's Top 10 Sovereign Wealth Funds**

Country	Fund	Year Established	Source of Funds	Current Size (billion)
UAE (Abu Dhabi)	Abu Dhabi Investment Authority	1976	Natural resources	\$625–\$875 *
Norway	Government Pension Fund—Global	1990	Natural resources	\$375
Saudi Arabia	Saudi Arabian Monetary Agency	1952	Natural resources	\$270
Singapore	Government Investment Corporation	1981	Foreign exchange reserves, fiscal surpluses	\$200–\$330 *
Kuwait	Kuwait Investment Authority	1953	Natural resources	\$213
China	China Investment Corporation	2007	Foreign exchange reserves	\$200
Russia	Stabilization Fund	2008	Natural resources	\$128
Singapore	Tamasek Holdings	1974	Government enterprises	\$110
UAE (Dubai)	Investment Corporation of Dubai	2006	Natural resources	\$82 *
Qatar	Qatar Investment Authority	2005	Natural resources	\$60

* estimate

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CHAPTER 2

CHINA'S ACTIVITIES DIRECTLY AFFECTING U.S. SECURITY INTERESTS

SECTION 1: CHINA'S PROLIFERATION POLICIES AND PRACTICES

“The Commission shall investigate and report exclusively on—
...
“PROLIFERATION PRACTICES—The role of the People’s Republic of China in the proliferation of weapons of mass destruction and other weapons (including dual use technologies), including action the United States might take to encourage the People’s Republic of China to cease such practices. ...
“REGIONAL ECONOMIC AND SECURITY IMPACTS—The triangular economic and security relationship among the United States, [Taiwan], and the People’s Republic of China (including the military modernization and force deployments of the People’s Republic of China aimed at [Taiwan]), the national budget of the People’s Republic of China, and the fiscal strength of the People’s Republic of China in relation to internal instability in the People’s Republic of China and the likelihood of the externalization of problems arising from such internal instability. ...”

Introduction

Witnesses testifying at the Commission’s May 2008 hearing to examine China’s nonproliferation policies and its proliferation practices told the Commission that China has made progress in developing and refining a nonproliferation policy and establishing mechanisms such as an export control system to implement that policy. Some Chinese companies show evidence they are seeking to change their objectionable behavior, and the government of the People’s Republic of China (PRC) has taken steps to increase its capacity to control the flow of weapons and technology to external customers. However, problems remain in the effectiveness of China’s export control enforcement, in the continuing proliferation behavior of some Chinese companies, and in China’s actions that weaken international efforts to prevent the spread of nuclear weapons to non-nuclear states, particularly Iran. Some of China’s actions, or its failures to act, have directly affected U.S. security in Asia and the Middle East as well as the international security environment.

While witnesses concluded that China's behavior, compared to several years ago, has improved, they also expressed the judgment that China still has a distance to travel in demonstrating its full commitment to preventing the spread of weapons of mass destruction (WMD), WMD delivery systems, and the technologies that support them. Furthermore, it remains important for the United States to engage with China on this issue and, in some cases, to use diplomacy to encourage China to improve its behavior. This section of the Report addresses the proliferation of WMD, their delivery systems, and related technologies. It does not address China's conventional arms sales.

China's Nonproliferation Policy and Multilateral Nonproliferation Commitments

Since the 1990s, the government of the PRC has been criticized for its proliferation of weapons of mass destruction, missiles, and WMD and missile technology. This Commission annually has held a hearing on this issue and since 2001 has observed a gradual improvement in the PRC's nonproliferation behavior. Principal Deputy Assistant Secretary of State for International Security and Nonproliferation Patricia McNerney acknowledged that this change has occurred in part because, "[t]he Government of China has come to recognize that it has a fundamental security interest in becoming a responsible nonproliferation partner."¹

China's approach to nonproliferation is expressed in its government white paper on nonproliferation, published in 2005, which states,

*International arms control, disarmament and non-proliferation are closely linked with international security. ... Currently, the international process of arms control, disarmament and non-proliferation is at a crucial crossroad. It is an absolute necessity for the maintenance of international peace, security and stability to seize fresh opportunities, meet new challenges and consolidate and constantly strengthen the existing international regime on arms control, disarmament and non-proliferation.*²

In that paper, China's government outlines its priorities to, first, guard national sovereignty and security and, second, enhance global stability. In addition, China proclaims a no-first-use policy with regard to its nuclear weapons, and a commitment not to use or threaten to use nuclear weapons against nonnuclear weapons states or nuclear-weapon-free zones.³ This position was further clarified in China's defense white paper in 2006.⁴

As an indication of its commitment, China has signed a number of international nonproliferation agreements or instruments. Doing so has entailed acceptance of obligations to prohibit use of nuclear, biological, and chemical weapons and limit the export of materials that could be used to develop nuclear weapons. China also is a partner in the U.S.-led Container Security Initiative (CSI) that seeks to prevent shipment, especially to the United States, in shipping containers of weapons, especially WMD. Below is a summary of existing nonproliferation regimes and China's participation in them—broken into two tables: those regimes and agreements in

which the Chinese government is a participant, and those in which it does not participate.

China's Nonproliferation Commitments

Nonproliferation Regime	Description	China's Response
Biological Weapons Convention (BWC)	Outlaws the production, development, storage and use of biological weapons.	China acceded to the BWC in 1984.
Chemical Weapons Convention (CWC)	Outlaws the production, storage, and use of chemical weapons.	China signed the CWC in 1993 and ratified it in 1997.
Nuclear Nonproliferation Treaty (NPT)	The five original nuclear states (France, China, USSR (now Russia), the United Kingdom, and the United States) agree not to use nuclear weapons against nonnuclear states except in response to a nuclear attack, and to prevent the transfer of nuclear weapons to nonnuclear states; and affirm the right of states that do not possess nuclear weapons to use peaceful nuclear technology.	China acceded to the NPT in March 1992.
Zangger Committee	Provides for maintenance of a list of equipment that may be exported by members only to facilities that have nuclear safeguards in place, and fosters coordination among states for the export of nuclear materials.	China joined the Zangger Committee in 1997.
Nuclear Suppliers Group (NSG)	Controls the export of materials that may be used for nuclear weapons development.	China joined the NSG in May 2004.
Comprehensive Test Ban Treaty (CTBT)	Each party agrees to prohibit "... any nuclear weapon test explosion or any other nuclear explosion, and to prohibit and prevent any such nuclear explosion at any place under its jurisdiction or control," and to "... refrain from causing, encouraging, or in any way participating in the carrying out of any nuclear weapon test explosion or any other nuclear explosion." ⁵	China signed the CTBT in September 1996 but has not ratified the treaty. (The United States is a signatory but also has not ratified the treaty).

China's Nonproliferation Commitments—Continued

Nonproliferation Regime	Description	China's Response
Container Security Initiative (CSI)	Establishes port security programs with cooperating countries to identify and screen suspect cargo containers destined for the United States in order to prevent these containers from being used by terrorists to deliver weapons, especially WMD, to the United States.	Two ports in China, Shanghai and Shenzhen and also the port of Hong Kong, participate in the CSI.

Major International Nonproliferation Efforts in which China Is Not a Participant

Nonproliferation Regime	Description	China's Response
Missile Technology Control Regime (MCTR)	Provides a “set of voluntary guidelines . . . to control the transfer of ballistic and cruise missiles that are inherently capable of delivering at least a 500 kg (1,100 lb) payload a distance of at least 300 km (186 miles).” ⁶	China affirmed its commitment to the MTCR with an October 1994 joint statement with the United States. China is not yet a member but applied for membership in 2004. ⁷
Australia Group	Enables participating members to harmonize their export control regimes to “ensure that exports of certain chemicals, biological agents, and dual-use chemical and biological manufacturing facilities and equipment, do not contribute to the spread of [chemical and biological weapons].” ⁸	China is not a member.
Proliferation Security Initiative (PSI)	Members cooperate to interdict and inspect any ship, aircraft, or vehicle suspected of transporting WMD or related goods.	China has not joined, voicing concerns about PSI's legality.

**Major International Nonproliferation Efforts in which
China Is Not a Participant—Continued**

Nonproliferation Regime	Description	China's Response
International Code of Conduct Against Ballistic Missile Proliferation	This code is intended to supplement the MTCR but is not restricted to MTCR members. States commit to ending the proliferation of WMD-capable ballistic missiles, to exercise restraint in developing and testing such technology, and to participate in transparency measures such as annual declarations of missile and space launch programs. ⁹	China has not joined.
Wassenaar Arrangement	Establishes lists of dual-use goods and technologies and conventional arms for which members are to develop export controls in order to promote transparency and greater responsibility in international transfers of such arms, goods, and technologies. ¹⁰	China is not a member.

China is not a member of the Australia Group, the Missile Technology Control Regime (although it applied for MTCR membership in 2004), the International Code of Conduct Against Ballistic Missile Proliferation, and the Wassenaar Arrangement.¹¹ Principal Deputy Assistant Secretary McNerney noted that, while China is not a member of the Australia Group, it has adopted export control lists similar to those recommended by the regime; China is negotiating with the group regarding membership.¹² China still has not joined the Proliferation Security Initiative (PSI) five years after its inception. The PSI is a U.S.-led effort to obtain multilateral cooperation in interdicting WMD, their delivery systems, and related technologies, when those are being shipped in international waters or across land borders.¹³ In certain instances, in response to U.S. requests, China has cooperated in some weapons or weapons materiel interdiction activities.¹⁴ The *New York Times* reported in 2006 that China denied Iran the right to fly over its territory with a military aircraft on its way to North Korea to acquire missile parts, but the Chinese government has not confirmed this incident.¹⁵

To justify its decision not to participate in the PSI, the PRC government has stated its concern that the interdiction activities of the PSI might “go beyond the [sic] international law” and thereby violate the sovereignty of some nations.¹⁶ The reluctance of China’s foreign affairs and defense community to participate may relate to China’s experience with the U.S. Navy and the Department of

State during the interdiction of a Chinese ship, the *Yinhe*, in 1993.¹⁷ In a text written for the People's Liberation Army (PLA) National Defense University titled *On Maritime National Interest*, a PLA senior colonel protests about China's "embarrassment at the hands of the United States" during the *Yinhe* Incident. According to Wang Lidong, the boarding and searching of a Chinese ship by the U.S. Navy, even after the PRC Foreign Ministry officially denied to the United States that the *Yinhe* carried chemical weapons precursors, is "an example of [American] imperialism and power politics."¹⁸ Wang, in a text used to train senior PLA officers about how to achieve flag rank, writes that the U.S.' actions indicate that at that time China did not have the capacity to protect its own maritime interests. As a result, he supports the development of a stronger Chinese navy able to protect those interests. If this attitude represents the dominant opinion in the PLA and the Central Military Commission, it is unlikely that China will choose to cooperate in the PSI, which involves the interdiction and inspection of ships and aircraft of sovereign states.

China's Nonproliferation Activities and Proliferation Practices

Positive Developments in China's Nonproliferation Activities

In addition to the international commitments it has made, China has taken other positive steps to strengthen its record on non-proliferation, most notably supporting several United Nations (UN) Security Council resolutions addressing Iran's and North Korea's nuclear programs, including resolutions imposing multilateral sanctions to pressure Iran to end its nuclear enrichment. However, the Commission notes that despite China's votes in favor of these resolutions, on several occasions prior to the votes China negotiated with other Security Council members to delay or water down their terms and to weaken the impact of the sanctions the resolutions imposed.¹⁹

Principal Deputy Assistant Secretary McNerney highlighted China's votes to support UN Security Council resolutions 1696, 1737, 1747, and 1803. Resolution 1737 required Iran to suspend uranium enrichment, imposed sanctions on nations transferring nuclear or missile technology to Iran, and froze assets outside Iran of key individuals related to its nuclear program.²⁰ Resolution 1747 prohibits member states from selling or transferring major weapon systems to Iran.

Resolution 1803, passed in March 2008, calls on member states to restrict entry or transit of individuals linked to Iran's nuclear activities and to "[avoid] financial support for trade with Iran ... contributing to proliferation of sensitive nuclear activities, or to the development of nuclear weapon delivery systems. ..."²¹ The resolution also calls upon states to inspect air or ship cargos to and from Iran if there are reasonable grounds to suspect the shipments violate any of the resolutions.²² Principal Deputy Assistant Secretary McNerney testified, "As a member of the P5 + 1 [United States, China, France, Germany, Russia, United Kingdom], China has reiterated that, should Iran continue to refuse verification and compliance negotiations, additional sanctions will be necessary to aug-

ment those already in place.”²³ Most recently, in July the United States, China, France, Germany, Russia, and the United Kingdom offered to Iran a package of incentives to halt its uranium enrichment that included formal negotiations regarding support to its civilian nuclear program.²⁴ Iran rejected the package and at the time this Report was completed, China is blocking talks about imposing new sanctions on Iran.²⁵

In addition to supporting the multilateral steps noted above to induce Iran to halt its nuclear activities, China has played an important role as a member of the Six-Party Talks seeking to obtain North Korea’s agreement to dismantle its nuclear weapons and disable its nuclear production capabilities. Following North Korea’s missile tests in July 2006 and its test of a nuclear device in October 2006, China supported UN Security Council resolutions 1695 and 1718. In addition, it hosted the Six-Party Talks involving the United States, Japan, South Korea, Russia, and North Korea.²⁶

The Commission’s 2007 Report to Congress acknowledged the February 2007 Initial Actions Agreement to fulfill the September 2005 agreement to denuclearize the Korean Peninsula and disable all existing nuclear facilities. Following this agreement, the parties agreed to a Second-Phase Actions Agreement in October 2007. According to Principal Deputy Assistant Secretary McNerney, China played a “constructive role” in hosting the Six-Party Talks and in creating and implementing both the Initial Actions Agreement and the Second-Phase Actions Agreement.²⁷ In a June 2008 speech at The Heritage Foundation on U.S. policy toward Asia, Secretary of State Condoleezza Rice stated, “Our decision to support China as the Chair of the [Six-Party Talks] has . . . been a strong incentive for Beijing to conduct itself responsibly on the North Korean issue.”²⁸

In June 2008, North Korea submitted a declaration of its nuclear weapons activities.²⁹ China hosted the following round of Six-Party Talks, and the parties still are discussing a set of principles and steps for the verification process.³⁰ In August 2008, North Korea announced that it had halted the dismantlement of the Yongbyon reactor to protest that the United States had not yet removed it from a list of state sponsors of terrorism.³¹ In October 2008, the United States removed the country from that list, and North Korea subsequently ended a two-month suspension of its implementation of the Six-Party Talks agreement and resumed dismantling the Yongbyon reactor.³²

Another positive development in China’s support for non-proliferation efforts has been the strengthening of its own export control system. In her testimony, Principal Deputy Assistant Secretary McNerney commended China for approving new laws and regulations to establish comprehensive domestic export control regulations based on its international commitments.³³ China has indicated a willingness to engage in export control cooperation with the United States, including receiving U.S. technical assistance regarding administration of export control programs and training of China’s export control officials.³⁴ Such training and education are occurring through several cooperative efforts, including those under the auspices of the State Department, American universities, and U.S. national laboratories. For example, in June 2007, the Pacific

Northwest National Laboratory's Center for Global Security announced a partnership with Fudan University in Shanghai to incorporate export control education in the university curriculum.³⁵

Continuing Concerns about China's Proliferation Practices

Despite the described progress that China has made in recent years in enhancing its involvement in nonproliferation activities and reducing the frequency and severity of its proliferation actions, real concerns remain about China's proliferation of prohibited weapons and technology and its failure to engage effectively in multilateral nonproliferation efforts. The concerns primarily relate to China's continued transfer of weapons and technology, its participation in the nonproliferation negotiations with Iran and North Korea, and the expansion of China's nuclear energy program and nuclear energy exports.

Continued WMD and advanced conventional weapons transfers by Chinese trading companies

Witnesses testified that some Chinese enterprises still are involved in various kinds of proliferation, and Principal Deputy Assistant Secretary McNerney stated, "... a number of Chinese entities continue to supply items and technologies useful in weapons of mass destruction, their means of delivery, and advanced conventional weapons to regimes of concern."³⁶ Henry Sokolski, executive director of the Nonproliferation Policy Education Center, told the Commission that Chinese companies are "getting smarter." They are not taking overt actions that would attract attention but are engaging in activities that are more covert such as the use of front companies to conceal parent company transactions.³⁷ Shirley A. Kan, an analyst at the Congressional Research Service and an expert on Chinese security affairs, writes, "PRC weapons proliferation has persisted, aggravating trends that result in more ambiguous technical assistance (vs. transfers of hardware), longer range missiles, more indigenous capabilities, and secondary (i.e., retransferred) proliferation."³⁸

The extent to which Chinese government officials are aware of, and possibly approve of, these continued actions is a debated topic. Principal Deputy Assistant Secretary McNerney asserted that China's export control enforcement efforts lack transparency, which complicates assessment of the government's knowledge or control of the proliferating activities of Chinese companies. She stated that in some cases, even when the United States alerts the Chinese government that specific sales may result in the illegitimate end-use of weapons or technology, the trade deals continue—with Iran, for example. She elaborated, saying,

A lot of times the Iranian entities, for example, will mask who they are when they approach these Chinese companies. Iranian entities will present different front names and will look like a legitimate transaction. But some Chinese companies continue to engage in prohibited sales with Iranian front companies even after being made aware of some of this information. That's when you know it's a willful ignorance in terms of what the end-use is.³⁹

She also noted that the Chinese government approaches alleged cases of proliferation differently than the United States, preferring to address the issue privately to avoid embarrassment.

Stephen Rademaker, a government affairs and strategic consultant who previously headed the State Department's bureaus of Arms Control and of International Security and Nonproliferation when he served as an assistant secretary of State, testified that when he worked with China on these issues he witnessed a disconnect between the Ministry of Foreign Affairs, with which the State Department primarily interacts, and other bureaucratic factions in the Chinese government. With some companies, such as China North Industries Corporation (NORINCO), Zibo Chemet Equipment Company, China National Precision Machinery Import/Export Corporation (CPMIEC), China Great Wall Industries Corporation (CGWIC), and Xinshidai—companies that the U.S. government has identified as “serial proliferators”⁴⁰—progress on curbing proliferation was much more difficult to attain. Mr. Rademaker concluded,

Whatever the reason, it appeared to me that stopping the proliferation activities of these companies was beyond the bureaucratic power of our counterparts in the Foreign Ministry. ... [B]y the time I left the State Department I had come to the conclusion that the problem with the serial proliferators was not that our nonproliferation counterparts within the Chinese government were uninterested in reining in these companies, but rather that they were unable to do so.⁴¹

Principal Deputy Assistant Secretary McNerney expressed the view that resolving this problem will require China to devote greater resources to enforcing its export control laws and to investigate and prosecute violators.⁴² Above all, she noted that greater transparency in China's enforcement actions would demonstrate to the Chinese people and to Chinese trading companies the government's determination to control proliferation originating in China. Furthermore, it would demonstrate to the United States China's commitment to address enforcement problems.

China's failure to participate or engage sufficiently in key multilateral nonproliferation and counterproliferation efforts

In some cases, China's involvement in multilateral efforts to prevent the spread of WMD, WMD technology, and delivery systems is disappointing. In the UN Security Council, China's efforts to dilute resolutions aimed at curbing development of Iran's and North Korea's nuclear programs and its weak implementation of those resolutions have hindered progress in negotiating with these two countries.

In the case of Iran, a Center for Strategic and International Studies report entitled *The Vital Triangle: China, the United States, and the Middle East* by Jon B. Alterman and John W. Garver concluded, “In its handling of the Iranian nuclear issue, Beijing sought to prevent the United States from using the United Nations to implement strong economic sanctions or to justify military action against Iran.” Throughout the development of recent

UN Security Council resolutions targeting Iran's nuclear program, "China worked to limit and water down sanctions."⁴³ One news media reporter concluded that China is withholding its support for political and economic reasons: to display its influence in regional politics, to limit U.S. influence in the Middle East, and also to protect its economic investments primarily in Iran's oil and gas sector.⁴⁴

Then-Deputy Assistant Secretary of State for East Asian and Pacific Affairs Thomas Christensen testified to the Commission that China's December 2007 \$2 billion deal with Iran to explore the Yadavaran oil field "... sends a very wrong signal to the Iranian regime at a time when other oil companies are heeding their governments' wishes to forgo investments in Iran in order to press the regime to comply with [UN Security Council] resolutions and its obligations to the International Atomic Energy Agency [IAEA]."⁴⁵ UN Resolution 1803 was passed with China's support just three months after China inked the deal with Iran. The resolution calls on states to prevent public financing of new investments in Iran if revenues can support the development of Iran's nuclear program. As the Commission reads that resolution, at least the spirit, if not the letter, of the resolution is contravened by this financial engagement.

Dr. Alterman and Dr. Garver argue that China has shown restraint in pursuing energy cooperation with Iran so as not to provoke the United States, but they indicate that, ultimately, "China recognizes Iran as a durable and like-minded major regional power with which cooperation has [served] and will serve China's interests in many areas. For this reason, Beijing is especially loath to sacrifice Iran to Sino-U.S. cooperation"⁴⁶ and therefore will continue hesitating to use its influence to press Iran to agree to a diplomatic resolution to the Iranian nuclear challenge.

While the responsibility to comply with the UN Security Council and IAEA lies with Iran, both China and Russia have hampered U.S. and European Union efforts to persuade Iran to halt its nuclear program development.⁴⁷ According to multiple witnesses, because China is unwilling to support serious action against Iran, the effect of the sanctions now in place has not been as strong as it was intended to be, and China will protect Iran against harsher sanctions.⁴⁸

Transfer of dual-use technologies by Chinese entities that may assist Iran's nuclear program is an issue of urgent concern.⁴⁹ Reuters quoted U.S. officials as saying that in early 2007, a Chinese company attempted to transfer to Iran chemicals used in the production of solid fuel for ballistic missiles but Singapore, working with U.S. intelligence agencies, intercepted the transfer.⁵⁰

While China's recent role in the Six-Party Talks has been perceived as largely positive, Principal Deputy Assistant Secretary McNerney testified that China could do more. She stated, "China has made it clear that it does not condone Pyongyang's nuclear aspirations but admittedly has not actively cooperated to ensure closure of North Korean front companies inside China that facilitate proliferation or the Chinese companies that supply them."⁵¹ These actions do not strengthen the multilateral negotiations and, in fact, have the potential to place China at odds with the other five par-

ties involved in the Six-Party Talks. For subsequent rounds of the Six-Party process, she noted, “[a]s we work to ensure that North Korea honors its commitments, continued Chinese support is pivotal in maintaining a united front.”⁵²

China’s nuclear energy program

China’s decision to export nuclear energy technology and to provide assistance to other nations to develop nuclear energy capabilities has generated concerns because of the potential for proliferation of nuclear weapons and technology to result from these activities.⁵³ Pakistan intends to import Chinese-designed pressurized heavy water reactors, systems that Mr. Sokolski noted could be easily adapted to produce plutonium for nuclear weapons.⁵⁴ In October 2008, China and Pakistan concluded an agreement for China to supply two new nuclear reactors to be added to an existing power plant in Chashma in central Pakistan.⁵⁵ In the months prior to this agreement, Principal Deputy Assistant Secretary McNerney testified before the Commission that this partnership is an area of potential concern. Alluding to past proliferation that resulted from Sino-Pakistani nuclear cooperation, she stated, “... we continue to watch [this] closely to ensure both that China abides by its commitments to the [Nuclear Suppliers Group] and ... that ongoing Chinese cooperation with Pakistan does not support Pakistan’s unsafeguarded nuclear weapons program.”⁵⁶ China also has extended offers of nuclear energy cooperation to Egypt and India.⁵⁷

Domestically, China plans to expand its nuclear energy capabilities to supply 4 percent of its total energy needs by 2020 and to generate 20 percent of its electricity by 2030.⁵⁸ To accomplish this goal, China plans to build at least 160,000 megawatts of nuclear power by 2030. China has signed several agreements for the construction of new nuclear energy plants, including an agreement with Westinghouse to build four AP1000 nuclear reactors.⁵⁹

Specifically referring to the Westinghouse sale, Stephen Mladineo, senior program manager at the Pacific Northwest National Laboratory, testified that the national security implications are negligible. The AP1000 reactor technology and design will not substantially aid China’s nuclear weapons program or naval nuclear program without the substantial reengineering of components. Furthermore, he noted that the sale provides substantial economic benefits for the United States.

In a paper they coauthored, Mr. Mladineo and Charles Ferguson concluded that these transfers could stimulate further growth in China’s uranium enrichment program. Mr. Ferguson commented that “... while the recent nuclear deal with China does not directly lead to an increased Chinese nuclear weapons capability, it could partially and intentionally offer China the means to boost that capability depending on political and strategic dynamics in the future.”⁶⁰ However, in his testimony, Mr. Mladineo stated that even with this increase in enrichment capacity, it is unlikely China will develop its nuclear weapons arsenal to parity with the United States or Russia.⁶¹

Regarding the nuclear balance in Asia, Mr. Sokolski noted that China currently is investing in the modernization of its existing strategic nuclear forces, and if it increases its nuclear weapons de-

ployment, this change would influence the nuclear weapons ambitions of East Asia, South Asia, and existing nuclear weapons states—thus fueling nuclear proliferation without actually transferring weapons or technology. Fear of China's arsenal could motivate Beijing's immediate neighbors, including Japan and Taiwan, to initiate nuclear weapons programs. He stated that if China were to agree to cap its production of fissile material and use it only for its civilian nuclear energy program, this could reassure China's neighbors that it intends to contain its nuclear weapons ambitions.⁶²

Impacts on U.S. Security

Recent developments in China's nonproliferation efforts—both positive and negative—have a direct impact on U.S. national security. For example, improved export control regulations in China provide the foundation for reducing the illicit transfer of weapons and technology to rogue states and nonstate actors who seek to injure the United States. U.S.-China cooperation regarding the U.S.-led Container Security Initiative is helping to prevent the transport of WMD or weapons of mass effect (WME) into the United States.⁶³ The Chinese ports of Shanghai and Shenzhen participate in this initiative, as does Hong Kong. Ports selected for this program have a high volume of trade with the United States and, overall, the 58 ports participating in the Container Security Initiative ship approximately 86 percent of all maritime containerized cargo imported into the United States.⁶⁴ Greater vigilance over the mechanisms by which weapons and technology are transferred can improve the overall security environment and will benefit the United States, along with other nations.

China's support for the Six-Party Talks also illustrates that U.S.-China cooperation on nonproliferation goals may produce positive results for U.S. security. As countries including the United States worked bilaterally with North Korea on the sidelines to address outstanding issues with North Korea, they collectively used their leverage to push forward the process which, so far, has resulted in North Korea submitting a declaration of its nuclear activities. Secretary Rice noted in her June 2008 speech at The Heritage Foundation that this process, after North Korea's complete denuclearization, could offer a platform for all the parties involved to continue their engagement on security issues in Northeast Asia.⁶⁵ In the short term, China's leadership as host for the talks has provided a forum for the parties, including the United States, to come together and continue pressing for North Korea's nuclear disablement and dismantlement of its facilities.

However, China's behavior toward Iran could help to catalyze the very kind of nuclear crisis the Six-Party Talks have tried to defuse. Refusal to help pressure Iran to accept a diplomatic resolution ending its uranium enrichment weakens the efforts of a large contingent of the international community, and Principal Deputy Assistant Secretary McNerney reiterated that the efforts stand a much better chance of success if all major national players remain united in their demands on Iran.⁶⁶

U.S. Efforts to Influence Chinese Nonproliferation Behavior

Given the long-term and far-reaching effects of China's proliferation practices, the United States has an interest in influencing and reinforcing China's commitment to nonproliferation. Currently, the U.S. government engages with China in several different ways to promote positive nonproliferation behavior. Principal Deputy Assistant Secretary McNerney indicated in her testimony that, at times, the U.S. government shares information with the PRC government about proliferation risks emerging from China. This level of cooperation is dependent upon mutual trust, and she noted that at times it is a "challenge" for Chinese authorities to accept U.S. information that a Chinese company is acting in an illegal fashion.⁶⁷

The U.S. government is engaged in training Chinese export licensing and enforcement officials through the Export Control and Related Border Security (EXBS) Program. This interagency program managed by the State Department assists foreign governments in developing effective export control systems.⁶⁸ In the past two years, the EXBS program has conducted two training sessions for customs officials in China and has sponsored activities aimed at industry-related export control training. The EXBS program also is coordinating with the International Nuclear Export Controls Program of the Department of Energy's National Nuclear Security Administration to develop technical guides on nuclear and nuclear dual-use materials in China that can be used by export and border control officials to facilitate efforts to prevent export of such materials.⁶⁹

Additional training and education on export controls occurs through university and research center exchanges and dialogues, such as the collaboration between the Center for International Trade and Security at the University of Georgia and China Foreign Affairs University in Beijing and programs through the James Martin Center for Nonproliferation Studies at the Monterey Institute for International Studies.⁷⁰ In programs such as these, Chinese officials who work on export control-related issues have the opportunity to engage in dialogue with their U.S. counterparts and also receive training on U.S. export control standards.

While genuine cooperation to prevent proliferation behavior is most desirable, imposition of U.S. sanctions remains an option to deter proliferation. Some sanctions imposed against Chinese companies in 2006 and 2007 remain in effect, but this year sanctions against some companies have been lifted. Sanctions imposed in 2005 under the Iran Nonproliferation Act of 2000 (which now bears the amended title of the Iran, North Korea, and Syria Nonproliferation Act) on the following companies expired at the end of December 2007 and were not renewed: NORINCO; LIMMT Metallurgy and Minerals Company, Ltd.; Ounion (Asia) International Economic and Technical Cooperation, Ltd.; Zibo Chemet Equipment Company; and China Aero-Technology Import and Export Corporation (CATIC). (Of note, some of these companies remain under sanctions under different U.S. laws and regulations.)⁷¹ In addition, on June 19, 2008, the U.S. Treasury Department announced it was lifting sanctions imposed under Executive Order 13382 for assist-

ing Iran's missile program on the China Great Wall Industry Corporation and its U.S. subsidiary.⁷² On October 23, 2008, the U.S. State Department announced sanctions against three Chinese companies for violating the Iran, North Korea, and Syria Nonproliferation Act. (See appendix V for a listing of sanctions imposed on Chinese entities since the Commission's 2004 Report and their status.)

Avoiding sanctions is a strong incentive for companies to enforce both national and the companies' internal nonproliferation regulations, according to Principal Deputy Assistant Secretary McNerney. Mr. Rademaker testified, "As far as changing the calculus of Chinese entities ... the record is clear that vigorous enforcement of U.S. sanctions laws and policies can make a big difference."⁷³ After companies are sanctioned, their international reputations are damaged, and they generally confront a loss of business worldwide, as companies and financial institutions are hesitant to engage with a sanctioned entity.⁷⁴ This effect has been enhanced; section 311 of the U.S. Patriot Act as amended in 2006 authorizes the U.S. government to freeze the assets of designated entities for proliferation-related transactions. Mr. Rademaker explained that this authority is powerful—extending to all financial transfers by these entities and not simply to those that were related to proliferation activities.⁷⁵ Principal Deputy Assistant Secretary McNerney testified, "We can leverage this desire by Chinese firms to come out from under sanctions and advertise the tangible benefits that can accrue to companies that wish to abandon proliferation."⁷⁶

In fact, it appears this is what happened in the cases of NORINCO and CGWIC. Both companies, identified as serial proliferators for their past activities, have approached the U.S. State Department to discuss how to prevent future sanctions. The State Department told them that if they cease proliferation-related activities, their improved behavior would be recognized by the United States. Principal Deputy Assistant Secretary McNerney further explained, "A commitment to end their proliferation-related activity, and concrete, positive action towards this end, would likewise increase prospects that Western companies and international financial institutions would have no concerns in developing broad economic and trade ties with these Chinese companies."⁷⁷ While noting it is still early to evaluate whether these two serial proliferators have demonstrated a robust commitment to nonproliferation, Mr. Rademaker concluded that their steps serve as "the best advertisement" for the U.S.' sanctions policy against proliferation.⁷⁸

Conclusions

- China has made progress in developing nonproliferation policies and mechanisms to implement those policies. Although it is apparent that China is making some meaningful efforts to establish a culture and norms supporting some aspects of nonproliferation within its bureaucracy and industry, gaps remain in the policies, the strength of government support for them, and their enforcement.

- Although China has acceded to numerous international agreements on nonproliferation and has cooperated with the United States on some nonproliferation issues (e.g., the Six-Party Talks), China has been reluctant to participate fully in U.S.-led nonproliferation efforts such as the Proliferation Security Initiative and in multilateral efforts to persuade Iran to cease its uranium enrichment and other nuclear development activities.
- China's support for multilateral negotiations with North Korea can help to reduce tensions on the Korean Peninsula, open North Korea to dialogue, and improve bilateral relations among the countries participating in the process—which may be crucial ingredients for peace and cooperation in northeast Asia and beyond.
- Experts have expressed concerns that China's sales or transfers of nuclear energy technology to other nations may create conditions for proliferation of nuclear weapons expertise, technology, and related materials. These activities also could feed the insecurities of other nations and cause them to pursue their own nuclear weapons development efforts. This could lead to an increase in the number of nations possessing nuclear weapons capability.

SECTION 2: CHINA'S VIEWS OF SOVEREIGNTY AND METHODS OF CONTROLLING ACCESS TO ITS TERRITORY

“The Commission shall investigate and report exclusively on—
...

“REGIONAL ECONOMIC AND SECURITY IMPACTS—The triangular economic and security relationship among the United States, [Taiwan], and the People’s Republic of China (including the military modernization and force deployments of the People’s Republic of China aimed at [Taiwan]), the national budget of the People’s Republic of China, and the fiscal strength of the People’s Republic of China in relation to internal instability in the People’s Republic of China and the likelihood of the externalization of problems arising from such internal instability. ...”

Introduction

Sovereignty is a core concept of international law that arose with the emergence of modern era nation states. Fundamentally, sovereignty refers to a state’s supreme authority, and this authority is both physical and political.⁷⁹ Sovereignty does not automatically accompany the emergence of a nation state but relies upon recognition by other states.⁸⁰ A sovereign state has physical control over its own territory and boundaries, controlling entry to and exit from a territory.

While discussions about sovereignty tend to be esoteric, the exercise of sovereignty has practical applications for international relations and security. It affects how a state defines its territory, how it demarcates its boundaries, and what measures it takes to protect those boundaries. It affects the identity of the state, as holdings of territory often have been equated with measurements of state power and influence. Additionally, the exercise of sovereignty affects simple aspects of everyday life, including freedom of movement and commerce. In February 2008, the Commission conducted a hearing on sovereignty and China’s views of sovereignty and control over its territory.

While the lines of China’s land borders for the most part have been demarcated, China recently has sought to assert sovereignty over maritime, air, and outer space territories—claims that are not recognized by others. China has pursued both military and non-military means to support or defend these claims. Some of China’s

actions pose challenges to the United States and its economic and security relationships in Asia.

This section examines Chinese concepts of sovereignty, examples of China's territorial claims, the means with which China seeks to assert its claims of sovereignty, and the implications for the United States.

China's View of Sovereignty

The concept of sovereignty is a sensitive issue in China. This sensitivity stems in part from the historical context of China's 19th century encounters with the West. Western governments pursuing expansion of trade took advantage of internal conflicts within China. After losses in the First Opium War (1839–1842) and the Second Opium War (1856–1860), the Qing dynasty signed treaties that opened the country to trade. The treaties, among other things, established “treaty ports” where international merchants could reside with extraterritoriality.⁸¹

The signing of these treaties, termed “unequal treaties” by China, was perceived as the beginning of a century of humiliation brought on by outside powers. Perhaps China's greatest loss of control of territory was to Japan, when China lost the Sino-Japanese War in 1895. In the Treaty of Shimonoseki in 1895, China ceded control over the Korean Peninsula, the northeastern region of China known as Manchuria, Taiwan, and the Pescadores Islands near Taiwan.⁸² As a result of these events, Chinese leaders came to associate the use of instruments of law and diplomacy by western states, and by a modernized Japan, with the exploitation of resources and territory and manipulation of China's political weakness.

Following the emergence of the People's Republic of China (PRC) in 1949, Communist leaders emphasized this “era of humiliation” in their internal propaganda. These past experiences still affect views regarding sovereignty by China's political and military leadership. June Teufel Dreyer, professor at the University of Miami, testified before the Commission that it is “ironic that a country that had to be forced into accepting the principle of sovereignty should now become its most staunch defender.”⁸³ In sovereignty debates today, China demonstrates a desire to recapture a sense of its greatness and status as a leading power in Asia.

PRC foreign policy directly recognizes the importance of sovereignty, respect of other countries' sovereignty, and expectation of the same respect from others. In the 1950s, Chinese officials articulated a set of diplomatic principles, called the “Five Principles of Peaceful Coexistence,” which included the principle of “mutual respect for sovereignty and territorial integrity.”⁸⁴ These principles continue to be repeated and used today in Chinese diplomatic statements and activities. (See chap. 4, sec. 1, “China's Expanding Global Influence and its Foreign Policy Goals and Tools” for further discussion of the “Five Principles of Peaceful Coexistence.”)

According to Dr. Dreyer, China tends to remain resolute on certain matters of principle in sovereignty questions. She stated, “[The Chinese] are willing to negotiate. They will occasionally compromise ... not on a principle, but on a given issue, without sacri-

ficing the principle behind it.” Although firm over claims to Tibet, Taiwan, Xinjiang, and Inner Mongolia, Chinese diplomats have compromised in other cases. M. Taylor Fravel, associate professor of political science at the Massachusetts Institute of Technology, writes, “Since 1949, China has settled seventeen of its twenty-three territorial disputes. Moreover, it has offered substantial compromises in most of these settlements, usually receiving less than 50 percent of the contested land.”⁸⁵ In July 2008, China and Russia approved a treaty that settled a 40-year dispute over the Yinlong (known in Russia as Tarabarov) and Heixiazi (Bolshoi Ussuriysky) Islands located in a river separating the two nations. China received control of all of Yinlong and half of Heixiazi in October 2008.⁸⁶ Other border disputes remain unresolved, India for example. China claims territories under Indian control, including most of the Indian state of Arunachal Pradesh. As the Commission noted in its 2007 Report based on its discussions with Indian officials in August of that year, “Chinese and Indian patrols meet face-to-face several times a year, and there is no shared understanding of escalation rules.”⁸⁷

Chinese leaders also recognize that territorial claims can have historical, political, and strategic value. Restoring Chinese sovereignty over and control of “lost” territories can allow the country to regain its historical status, and successful exercise of control over those territories also can serve as a metric for measuring Chinese military and economic strength. Moreover, Chinese officials can use sovereignty claims to exercise diplomatic influence and to demonstrate prowess in international law. Certain territorial claims also can have very practical applications, such as providing access to shipping lanes or oil and gas resources. These features can be of strategic importance for China’s economic growth or in the case of a military conflict.

Salient Sovereignty Issues in U.S.-China Relations

Taiwan

China has active territorial claims, and some of these claims directly affect U.S.-China relations as well as U.S. economic and security concerns in Asia and around the world. Taiwan is the most contentious territorial issue. According to the Taiwan Affairs Office of the PRC State Council, “Taiwan is an inalienable part of China.”⁸⁸ The PRC argues that following World War II, Taiwan was returned to Chinese control (under the Republic of China governed by Chiang Kai Shek). After the PRC was established in 1949 and Chiang fled to Taiwan, the PRC argued that Taiwan is still a part of China: “This is a replacement of the old regime by a new one in a situation where the main bodies of the same international laws have not changed and China’s sovereignty and inherent territory have not changed therefrom, and so the government of the PRC naturally should fully enjoy and exercise China’s sovereignty, including its sovereignty over Taiwan.”⁸⁹ This claim underpins the One-China policy, and asserting control over the Taiwan territory remains a central issue in Chinese diplomacy and military affairs. (For further discussion of the status of Taiwan, see chap. 4, sec. 2, “China’s Relationships and Activities in East Asia.”)

The assertion of control over Taiwan also has strategic value for China. In an article published in the *Naval War College Review*, Chris Rahman writes,

Taiwan's physical position complicates free access to the Pacific from the mainland. The island does not block that access entirely, but its possession by a maritime power inimical to China might threaten both China and China's sea-lanes, both eastward to the Pacific and down through the South China Sea. On the other hand, should Taiwan fall into Beijing's hands, China would be better able to prosecute sea-denial operations and sea-lane disruption against the other Northeast Asian states and their American ally, should the need arise. Accordingly, the 'recovery' of Taiwan represents part of the rationale for the pursuit of offshore active defense and greater defensive depth; in the longer term, the island would play a leading role in the execution of that very strategy. Chinese strategists well understand the relevance of the island to the accomplishment of China's wider maritime goals and the development of a successful national maritime strategy, as reflected by the thoughts of two PLAN [People's Liberation Army Navy] officers: "China is semiconcealed by the first island chain. If it wants to prosper, it has to advance into the Pacific, in which China's future lies. Taiwan, facing the Pacific in the east, is the only unobstructed exit for China to move into the ocean. If this gateway is opened for China, then it becomes much easier for China to maneuver in the West Pacific."⁹⁰ [emphasis added]

With physical control over Taiwan, China has an opening through the "first island chain" and therefore could position itself for broader expansion into the Pacific region. China also could expand its maritime boundaries by establishing its baseline from the coast of Taiwan. This would significantly expand both its coastal territorial waters and Exclusive Economic Zone (EEZ) and thus provide new waters for resource exploitation and fishing rights.

China's Interpretation of the Law of the Sea Treaty

China has open disputes regarding the extent of its sovereignty along its maritime borders, and these territorial claims affect key U.S. allies and partners in the region, including Japan and Korea. China became a party to the United Nations (UN) Convention on the Law of the Sea ("Law of the Sea Treaty") in 1996.⁹¹ The Law of the Sea Treaty defines territorial waters as "up to a limit not exceeding 12 nautical miles" measured from a baseline defined as the "low-water line along the coast as marked on large-scale charts officially recognized by the coastal State."⁹² State sovereignty also extends upward from those boundaries into airspace. The treaty recognizes the right of coastal states to an EEZ, an area beyond and adjacent to territorial waters in which states have "sovereign rights," including rights over living or nonliving natural resources and the right to explore and exploit the resources in the zone. According to the treaty, the EEZ extends 200 miles from the coastal

baseline. Other states enjoy overflight rights and freedom of navigation within the EEZ.⁹³

Another important provision of the treaty affecting China is the right of passage through straits used for international navigation, and parties to the treaty may not hinder “innocent passage”—the transit of ships that are not challenging the sovereignty of the coastal state or engaging in military activities that threaten the security of the state.⁹⁴ As the Taiwan Strait is used for international navigation, under the terms of the treaty ships and aircraft may pass freely through the strait outside China’s territorial waters without impinging upon Chinese sovereignty.

In 1996, when it ratified the treaty, the Chinese government produced a declaration that reaffirmed its claims over Taiwan and the Diaoyutai Islands, Penghu Islands, Dongsha Islands, Xisha Islands, Nansha (Spratly) Islands, and “other islands that belong to the [PRC].”⁹⁵ The declaration also argues that the provisions of the treaty concerning innocent passage of ships do not preclude the “right of a coastal State to request . . . a foreign State to obtain advance approval from or give prior notification to the coastal State for the passage of its warships through the territorial sea of the coastal State.”⁹⁶ Article 19 of the Law of the Sea Treaty regarding innocent passage does not distinguish between foreign warships and any other ships, so long as the ships do not pose “any threat or use of force against the sovereignty, territorial integrity, or political independence of the coastal State” and are not conducting an exercise with weapons.⁹⁷ China’s declaration expands its sovereignty by placing such a requirement on foreign warships in its own territorial waters.

In 2006, 10 years after its first declaration, China, as permitted by the treaty, submitted another declaration regarding its obligations under the dispute settlement provisions of the treaty. This one stated that it will no longer accept the compulsory procedures identified in the treaty for resolving disputes, i.e., submitting a dispute to the International Tribunal for the Law of the Sea, the International Court of Justice, or an arbitral tribunal.⁹⁸ Therefore, China will not accept any decision regarding its maritime territorial disputes from these bodies and with its declaration rejects any obligation to comply with any decision made by these mechanisms that involves China and its maritime territorial claims. In effect, the only avenues of peaceful dispute resolution for China and all the other parties involved in its maritime disputes are diplomacy, negotiations, or other means to which all parties to a conflict agree.

With these declarations, China has released itself from a significant set of obligations created by the treaty. According to Dr. Dreyer, these exceptions to its treaty obligations result from China’s unwavering adherence to what it sees as important principles. However, this behavior by China has led to many areas of disagreement between China and the United States about China’s treaty and other international obligations.⁹⁹ With these exceptions, there are questions as to how much benefit the world receives from China’s participation in the treaty regime versus how much benefit China receives.

China has enacted domestic legislation addressing its sovereignty claims in its EEZ, in particular the “Exclusive Economic Zone and Continental Shelf Act” it enacted in June 1998.¹⁰⁰ This law states, “The continental shelf of the People’s Republic of China comprises the seabed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance.” As Yann-Huei Song and Zou Keyuan write in *Ocean Development and International Law*, “The PRC has now formally declared a 12-nautical-mile territorial sea . . . , a 200-nautical-mile EEZ, and a 200-nautical-mile-plus continental shelf.”¹⁰¹ China’s legislation allows it to define its outer territorial boundaries based upon which of these encompasses a larger area—the 200-mile EEZ, or the outer edge of the territory claimed by China as its continental shelf. A Chinese Academy of Social Sciences legal scholar concurs, stating that “[t]he coastal State whose continental shelf extends beyond 200-nautical-miles chooses to establish the maximal limits of the continental shelf in the light of its geographic and geological features.”¹⁰²

The Law of the Sea Treaty provides for cases where the natural prolongation of the continental shelf extends beyond 200 nautical miles, but no further than 350 nautical miles.¹⁰³ China has used this legal provision in determining the extent of its continental shelf in the East China Sea and therefore the extent of its sovereignty and rights to resources in that area.

China’s domestic law on the EEZ also subjects navigation and overflight through all areas it claims to the laws and regulations of the PRC. Philip Meek, associate general counsel for the U.S. Air Force, testified before the Commission that, based on the act, instead of recognizing the airspace above its EEZ as “international airspace,” China considers it to be subject to its sovereign control. Despite numerous U.S. objections to this interpretation, China has used its 1998 law as justification for this sovereignty claim and to substantiate the interception, harassment, and engagement of U.S. aircraft flying above its area.¹⁰⁴

One incident in U.S.-China relations highlights the problems that can flow from China’s interpretation of sovereignty and overflight rights in the EEZ. In April 2001, a Chinese fighter plane accidentally collided with a U.S. EP-3 reconnaissance aircraft flying within the EEZ. The damaged U.S. plane was forced to make an emergency landing on China’s Hainan Island, and the crew was held in isolation for three days by the Chinese government. China claimed that the U.S. plane was a “spy plane,” although it was clearly marked “U.S. Navy” and “flying in the EEZ along a frequently flown route following a publicly available flight plan and performing overt reconnaissance missions to which Chinese officials previously had not objected.”¹⁰⁵

China’s interpretation of the Law of the Sea Treaty and its demarcation of its coastal baseline and EEZ are the foundation for PRC claims to territory in the East China Sea and the South China Sea. China continues to have occasional disputes with Japan,

India, Vietnam, Taiwan, and other states around its periphery over these claims, some of them, such as the Spratly and Paracel islands, involving multiple claimants. In the East China Sea, China has two territorial disputes with Japan. The first dispute is regarding sovereignty over the Senkaku Islands, called the Diaoyutai Islands by China. China has asserted an historical claim over the islands, arguing that they were ceded to Japan in the unequal Treaty of Shimonoseki in 1895 and should be returned to Chinese territory. Japan disagrees and argues that these islands were uninhabited and were placed under Japanese control prior to the treaty.¹⁰⁶

The second dispute in the East China Sea concerns the maritime boundary between China and Japan. Based on the interpretation of the treaty noted above, China claims that its continental shelf in the East China Sea extends all the way to the axis of the Okinawa Trough—approximately 350 nautical miles from the Chinese coast—and therefore claims rights to the additional territory and its resources.¹⁰⁷ Japan disputes China's interpretation and argues that "the EEZ of both sides overlap because the width of the [East China Sea] is less than 400 [nautical miles] and therefore the median (or equidistant) line drawn through the overlapping area should be the maritime border."¹⁰⁸ This interpretation is consistent with article 15 of the Law of the Sea Treaty, which states, "Where the coasts of two States are opposite or adjacent to each other, neither of the two States is entitled, failing agreement between them to the contrary, to extend its territorial sea beyond the median line every point of which is equidistant from the nearest points on the baselines from which the breadth of the territorial seas of each of the two States is measured."¹⁰⁹ This dispute is complicated even more by claims from South Korea and Taiwan that also border the East China Sea.¹¹⁰ South Korea has a provisional agreement with Japan regarding its claims but has not resolved its dispute with China.¹¹¹

While China's claims on this territory are based upon its interpretation of history and maritime boundaries, these claims also have an economic motivation. In 1969, the Committee for Coordination of Joint Prospecting for Mineral Resources in Asian Offshore Areas operating under the auspices of the United Nations conducted a geographical survey and concluded that the continental shelf in the East China Sea, including the area around the Senkaku/Diaoyutai Islands, may be rich in oil resources.¹¹² The East China Sea oil and gas reserves may amount to 500 million kiloliters (approximately 3.1 billion barrels of oil) of crude oil volume, representing a significant new development of resources in the region. Of note, China asserted its claim over the islands in May 1970 after Japan and Taiwan began talks about joint exploration of the energy resources around these islands.¹¹³

In June 2008, China sidestepped its sovereignty claims in an attempt to promote exploitation of these resources. The PRC Ministry of Foreign Affairs announced that China National Offshore Oil Corporation will cooperate with Japanese partners to develop jointly the oil and gas resources located in the East China Sea, sharing equal investment, risk, and profit. This agreement will allow China to exploit the area economically, but the basic disputes regarding

the Senkaku Islands and the maritime boundaries remain unresolved.¹¹⁴

In the South China Sea, China is involved in disputes over several island groupings, including the Paracel Islands and the Spratly Islands. The Paracel Islands have been occupied by China since 1974. In 1999, China built an installation on Mischief Reef, a part of an island group also claimed by Taiwan and Vietnam.¹¹⁵ The Spratlys, consisting of more than 100 islands and reefs, are claimed in their entirety by China, Taiwan, and Vietnam; portions of the island group are claimed by the Philippines and Malaysia.¹¹⁶ Currently, Vietnam, China, Taiwan, the Philippines, and Malaysia occupy various islets or rocks within the Spratly Islands.¹¹⁷ China, the Philippines, and Vietnam have signed an agreement to conduct marine seismic activities in the region, useful for discovering oil and gas resources.¹¹⁸

China's Claims on Outer Space

There is a debate in China over the control of airspace over territory. Some Chinese scholars also argue that China's control of airspace extends upward indefinitely into outer space. China has passed no domestic laws claiming sovereignty in outer space, but People's Liberation Army (PLA) officer and author Cai Fengzhen contends that "[t]he area above ground, airspace and outer space are inseparable and integrated. They are the strategic commanding height of modern informationalized warfare."¹¹⁹ He admits, however, that "... there is no clear standard in international law as to the altitude to which territorial airspace extends." In an article published in *Space and Defense*, Baker Spring explains that "... there is no formal treaty or non-treaty international agreement that defines the upper limit of territorial space and the lower limit of outer space. ... Nevertheless, states have generally come to accept that there is a fundamental difference between the two and behave in a way that tacitly acknowledges that there is some kind of demarcation line."¹²⁰ If Cai Fengzhen's interpretation represents the common view of Chinese government and military officials, it differs dramatically from the U.S. position and interpretation of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, also called the Outer Space Treaty of 1967.

This document regards outer space as an international commons in which no country can carve out sovereignty claims. The treaty states, "The exploration and use of outer space, including the Moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind."¹²¹ Beyond the scientific value of exploration and discovery, outer space has many commercial applications, such as the use of satellites for communication and global positioning. Without the treatment of space as a "province of all mankind," states seeking to enforce territorial claims would impose a tremendous economic cost on global commerce and modern daily life.

While this treaty article attempts to define the nature of space, the practical application of the treaty is not always clearly defined. The treaty does not provide clear answers to other questions such

as, “What constitutes a space weapon?” or “Where does outer space begin and airspace end?” Some issues purposefully were left vague during the negotiations in order to reach consensus. Section IV of the Outer Space Treaty states:

States Parties to the Treaty undertake not to place in orbit around the Earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner.

*The Moon and other celestial bodies shall be used by all States Parties to the Treaty exclusively for peaceful purposes. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military maneuvers on celestial bodies shall be forbidden. The use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited. The use of any equipment or facility necessary for peaceful exploration of the Moon and other celestial bodies shall also not be prohibited.*¹²²

Space law expert Peter Hays notes that disagreements arise from undefined concepts, unclear language, or notable omissions. For example, he describes the omission of antisatellite weapons in the Outer Space Treaty and its implications:

*[The Outer Space Treaty] is silent on anti-satellite systems. It covers weapons of mass destruction, nuclear weapons, bases on the moon, fortifications, etc., but it doesn't say anything about whether you can have anti-satellite weapons. Under the positivist interpretation of international law, if something is not explicitly banned, it is permitted, and that is clearly the position of major signatories of the OST [Outer Space Treaty] regarding ASATs [antisatellite weapons].*¹²³

China and the United States are parties to this treaty and three other multilateral treaties governing the use of space—the Rescue and Return Agreement of 1968, the Liability Convention of 1972, and the Registration Convention of 1975.¹²⁴ Philip Meek testified to the Commission that any analysis of the legal aspects of China's assertions of sovereignty in space should begin with the Outer Space Treaty.¹²⁵

One of the primary disagreements between the American and Chinese positions on the treaty relates to the use of space for “peaceful purposes.” In a Chinese international law journal, Ren Xiaofeng, a PRC legal scholar, noted that the U.S. position on outer space takes “peaceful use” to mean “non-aggressive,” but Chinese scholars have interpreted “peaceful” use to mean “non-military.”¹²⁶ Although the Chinese government has not issued any formal statements concerning its interpretation of “peaceful purposes,” the statements of the Chinese Delegation at the Thematic Debate on Outer Space at the 62nd Session of the United Nations General Assembly (UNGA), and the statement by Ambassador Hu Xiaodi at the Plenary of the 2003 Session of the Conference on Disarmament addressing Prevention of an Arms Race in Outer Space (PAROS),

suggest that China may consider the phrase “peaceful purposes” to mean “non-military.”¹²⁷ Chinese officials also have highlighted the importance of preventing the proliferation of space weapons, stating before the United Nations that “It is urgent to do what is necessary to prevent the proliferation of space weapons. The key to this end is to take preventive measures. Otherwise, the right to peaceful use of outer space and the safety of outer space assets will be put in jeopardy.”¹²⁸

However, the “peaceful purposes” language in the treaty does not address space itself; it is limited to the moon and other celestial bodies. Moreover, the majority of parties to the treaty interpret that language as meaning “non-aggressive” and not as a prohibition on military activity in space. According to the U.S. interpretation of this clause, “peaceful purposes” allows defense and intelligence-related activities conducted in the pursuit of national interests.¹²⁹

China’s interpretation of the peaceful use of space seems inconsistent with its development of PLA space weapons programs. Chen Qiang, a Chinese legal scholar, highlighted this when he posited that the use of surveillance satellites may constitute an “aggressive use of outer space.”¹³⁰ In addition, this interpretation is inconsistent with the existence of Chinese reconnaissance/imagery satellites, presumably military in nature, currently in orbit, according to the Office of the Secretary of Defense in its unclassified *Annual Report to Congress, Military Power of the People’s Republic of China, 2008*.¹³¹

The *Military Power Report* further notes China’s robust, multi-dimensional counterspace program, including satellite communications jammers, global positioning system jammers, direct ascent antisatellite missiles, and a range of other technologies that are being pursued, such as directed-energy (e.g., lasers and radio frequency) weapons for ASAT missions.¹³² None of these ground-based counterspace weapons is prohibited under current international law. However, China’s collaboration with Russia to seek support for a PAROS treaty within the UN Conference on Disarmament, juxtaposed with developments under China’s counterspace program, inevitably raises questions about China’s real intentions.

In a recent forum on national security and space, Peter Hays described his doubts about the sincerity of the Chinese government in pursuing support for a PAROS treaty:

*[A]ccording to the Times of London, the purpose of the Chinese ASAT test was to get the United States to the negotiating table, to negotiate on [the PAROS initiatives]. That strains my credulity, I must say. They also said that the Chinese ASAT test was a response to the bellicose tone of the latest U.S. National Space Policy. Clearly this is a long-term, ongoing effort and the decision to create this ASAT system on the part of the Chinese probably took place in the late 1990s. How they could be prescient enough to know that there would be a bellicose tone in October of 2006 would be something we’d really need to be worried about.*¹³³

The proposed PAROS treaty itself is plagued by a myriad of issues, including what constitutes a space weapon, how space activity will be monitored, and who will punish law breakers and how they will do so. Even if a consensus by the major space-faring nations can be achieved, China will need to explain the contradiction between its oft-stated commitment to an outer space free of weapons and its extensive counterspace weapons program.

China's Methods for Protecting Sovereignty and Asserting Sovereignty Claims

Military Methods for Protecting and Asserting Sovereignty

For China, one key aspect of guarding its sovereignty is the development of a military capable of protecting its claims and preventing intrusions. This is the traditional method a state uses to enforce its claims on territory, and it is apparent in China's military doctrine today. China's 2006 Defense White Paper identifies the enhancement of Chinese sovereignty as a fundamental objective of the military, stating, "The [People's Liberation Army] ensures that it is well prepared for military struggle, with winning local wars under conditions of informationization and enhancing national sovereignty, security, and interests of development as its objective."¹³⁴ This goal also has been associated with the PLA's "historic missions," including ensuring China's sovereignty, territorial integrity, and national security.¹³⁵ All these objectives offer a framework for designing PLA activities domestically and abroad and also provide a means to justify the acquisition of new military capabilities that can aid in the protection of territory.

Roy D. Kamphausen, director of the Washington, DC, office of the National Bureau of Asian Research, a nonprofit research organization, testified before the Commission that the PLA is tasked by Chinese Communist Party leaders with protecting and advancing Chinese sovereignty interests in the following four ways:

1. *At a fundamental level, the PLA advances Chinese sovereignty by engaging in an ambitious program of military modernization that contributes to an increase in Comprehensive National Power;*¹³⁶
2. *The PLA enhances China's international status by acting as a stakeholder in defense and security issues within the existing norms of the international system;*
3. *The PLA occasionally undertakes assertive actions that are intended to enhance China's ability to bring about outcomes more favorable to China's sovereignty claims;*
4. *The PLA actively prepares to prevent de jure Taiwan independence and to avoid third party interference in its central sovereignty challenge.*¹³⁷

A key feature of this military power is providing China the capability to fight and win military engagements and deter objectionable actions, thereby enhancing China's status as a regional leader. Mr. Kamphausen further noted that Beijing wants its military to be sufficiently powerful to protect, and, if necessary, advance the

national sovereignty goals of the Chinese government. This requires the PLA, at a minimum, to be able to perform military missions throughout Asia.¹³⁸

In addition, Mr. Kamphausen noted that the PLA supports Chinese sovereignty goals by enhancing China's status through its increasingly active participation in international defense and security initiatives such as those carried out in UN peacekeeping operations (UN PKO). China now has surpassed the United States as a supplier of troops for UN PKOs.* The PLA also increasingly takes part in multinational military exercises, particularly under the auspices of the Shanghai Cooperation Organization. Such participation, like its growing participation in UN PKOs, enhances China's international reputation and prestige.¹³⁹

More recently, the PLA has developed a relatively active program to demonstrate its military presence in Asia. Most of this activity has taken place near China—in the Taiwan Strait, the East China Sea, and the South China Sea. Some of the missions carried out by the PLA are intended merely to demonstrate a Chinese presence. Other missions, particularly those involving air reconnaissance over the Taiwan Strait, submarine patrols in Japanese territorial waters, and naval cruises through contested waters, have showcased a policy of more assertive engagement by the PLA¹⁴⁰ and have indicated that China will not easily be dissuaded from its claims or prevented from asserting them.

Mr. Kamphausen testified that the PLA's involvement in China's sovereignty claims ultimately may lead to two divergent outcomes:

*Insofar as China's growing military power is deftly wielded and its strategy of pragmatism, noninterference, and increased participation in international fora sustained, Beijing may enhance regional security as its neighbors recognize the stabilizing value of burgeoning Chinese [Comprehensive National Power]. At the same time, however, China's military activism is inherently risky, containing the potential to further isolate and marginalize Taiwan, among others, and thus further harden opposition to a military solution to Taiwan's status. Consequently, a chief goal of China's military program to advance sovereignty could be put at risk by the very means that are employed to accomplish it.*¹⁴¹

Nonmilitary Methods for Protecting and Asserting Sovereignty

As noted in this section's introduction, claims of sovereignty have no value if they are not recognized by other states. For this reason, China ambitiously uses diplomacy and political influence to assert control over those territories it claims and to encourage other states to recognize those claims.

Testifying before the Commission, Peter Dutton, associate professor of China maritime studies at the Naval War College, identified from Chinese writings three types of nonmilitary "warfare" to

* Susan Puska, "Military backs China's Africa adventure," *Asian Times Online*, June 8, 2007. <http://www.atimes.com/atimes/china/f08ad02.html>.

enhance China's assertions of sovereignty, including legal warfare, psychological warfare, and public opinion warfare. These non-military methods employ "deft diplomacy, prolific ... academic activities, [and] disciplined information management. ... The focus of each of these activities is fundamentally to create and to advance international and domestic legitimacy for China's viewpoint of its sovereign authority."¹⁴²

These nonmilitary tactics have been used collectively by China against a range of nations—any that it perceives to pose serious challenges to its sovereignty claims. But the PRC government has focused on the United States as the leading threat to its territorial claims, particularly in the post-Cold War period. In response to and as a component of China's growing interaction with the world and the increased foreign military presence around China's periphery, the PRC government has adopted measures to create a web of relationships and buffer zones around China to constrain the actions of stronger adversaries through norms, principles, and bilateral, regional, and international agreements. This strategy intends to limit real or perceived efforts by the United States to impinge on China's sovereignty.¹⁴³

Lawfare

In testimony before the Commission, Mr. Meek explained that legal warfare, or "lawfare," occurs when a state asserts positions in legal forums justifying its own military actions or denying the legitimacy of an adversary's military actions, defenses, or resistance to aggression. An example of this is the increasing number of scholarly articles published by Chinese authors claiming that China's terrestrial borders extend infinitely upward through outer space and that all the space within those perimeters is China's sovereign territory.¹⁴⁴ These articles generally assert that territorial claims in outer space are not inconsistent with international law, because no internationally accepted definition of "outer space" delineates where territorial airspace ends and outer space begins. They go on to claim that China has sovereign territorial rights to all of outer space above its terrestrial area.

The problem with these "lawfare" efforts is that, as Mr. Meek noted before the Commission, "any Chinese assertion of sovereignty in outer space would be completely inconsistent with international space law. Article II of the Outer Space Treaty [of which China is a signatory] clearly establishes that outer space is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means."¹⁴⁵

Efforts to construct legal justifications of China's sovereignty claims are intended to engender international support while also justifying the preparation of China's military forces to engage in military conflict in the event that its claims are challenged by force.¹⁴⁶ Across a number of fronts, China may be laying the legal foundations for possible conflict in the maritime domain and in outer space. Two PLA officers, Zhang Shanxin and Pan Jiangang, writing on the importance of "legal warfare," said that China must conduct legal campaigns to generate support for military action because prior to any military conflict a nation must "muster public opinion in its favor."¹⁴⁷

The use of legal frameworks to justify military action across these domains appears to be the purpose of China's 2005 Anti-Secession Law that sets forth an unambiguous legal justification for the PLA to attack Taiwan. Article 8 of the law cites protection of China's sovereignty and territorial integrity as underlying justifications for military intervention and explicitly threatens the use of military force if Taiwan seeks de jure independence from the mainland:

*In the event that the 'Taiwan independence' secessionist forces should act under any name or by any means to cause the fact of Taiwan's secession from China, or that major incidents entailing Taiwan's secession from China should occur, or that possibilities for a peaceful reunification should be completely exhausted, the state shall employ non-peaceful means and other necessary measures to protect China's sovereignty and territorial integrity.*¹⁴⁸

Lawfare can be used by China against any actions it perceives to pose serious challenges to its sovereignty claims. Chinese leaders use legal agreements, treaties, and norms to attempt to limit the actions of other countries.¹⁴⁹ For example, as described in detail earlier in this section, China's interpretation of its rights under the Law of the Sea Treaty may be used to impinge upon other states' freedom of navigation and overflight in the Exclusive Economic Zone around China.

In turn, the United States and many of China's regional neighbors have adopted a similar approach intended to hedge against the possible effects of China's growing economic and diplomatic power. China's neighbors seek to develop relationships, institutions, agreements, and norms that can preclude disruptive Chinese practices and promote greater stability in Asia.¹⁵⁰ The effect of these efforts, along with similar efforts on the part of the Chinese government, has been to increase stability and reduce the danger of confrontation in Asia, which is in the interest of the United States.

Psychological Warfare

In his testimony, Mr. Meek defined psychological warfare as the use of planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, and objective reasoning, and, ultimately, to influence the behavior of foreign governments, organizations, groups, and individuals.¹⁵¹ The Chinese government practices this kind of tactic, among other reasons, to influence the perception of its sovereignty claims and discredit opposition to those claims. It uses this tactic domestically against the Chinese people and also against target foreign populations.¹⁵² Psychological warfare also includes deception, which is utilized to mislead and surprise an adversary so that he or she makes faulty decisions and takes unwise actions. This deception includes schemes to create divisions among leaders, their subordinates, and other organizations.¹⁵³

Media and Public Opinion Warfare

Both Mr. Dutton and Mr. Meek highlighted in their testimony the use of public opinion warfare, whereby China uses news media and information resources to develop a favorable environment to achieve propaganda objectives and break the adversary's will to fight.¹⁵⁴ Such activities, although they do not make use of military force, are employed for the purpose of catalyzing negative international opinion concerning the nation or national activity against which they are targeted. The PRC government's use of public opinion warfare may entail comments to the press by Chinese officials, articles in China's daily newspapers and publications, advertisements purchased in domestic or foreign publications, employment of public relations firms or lobbyists, and actions of Chinese representatives at various international venues, including UN gatherings. China frequently employs these venues to deliver criticisms of or rebuttals to claims that run counter to those of the PRC government. Although they are nonmilitary attacks, these occasions are used to produce negative international opinion of the nations that oppose China's interests or desires. For example, following the anti-Chinese protests surrounding the Olympic torch relays in France, the Chinese press published articles vigorously denouncing the actions of sympathizers for Tibet and trying to reframe the issue as an attempt by Tibetan separatists to destabilize China prior to the Olympics. *Xinhua* stated, "The more the Dalai Lama clique tries to disrupt the Olympic torch relay and some Western politicians and media take advantage to launch attacks and condemn China, the more we need to unify with the people of the world to hold a successful Olympic Games."¹⁵⁵

The use of public diplomacy to sway perceptions of Chinese sovereignty claims has been especially effective in limiting the ability of Taiwan to assert its own claims of sovereignty and to have diplomatic recognition from other states. China uses aid packages to woo governments with diplomatic relations with the Republic of China—to encourage them to derecognize Taiwan and establish formal relations with the PRC. (For more discussion of Taiwan and the competition between it and the PRC for international recognition, see chap. 4, sec. 1, "China's Expanding Global Influence and its Foreign Policy Goals and Tools.")

The Implications for the United States of China's Use of Military and Nonmilitary Methods to Assert Sovereignty

Both the military and nonmilitary means China is deploying to advance its sovereignty claims have negative implications for the United States. China's ability to assert and defend its sovereignty claims through military means is being enhanced by its military modernization.¹⁵⁶ These developments give it greater capability to deter, delay, or deny efforts by other nations to resist China's territorial claims. Where U.S. and Chinese interests conflict, this has implications for the United States. PLA access control capabilities could slow or prevent U.S. military actions in the Pacific region and affect the outcome of those actions.

To the extent Chinese propaganda is accepted by the international community on issues such as China's control of the seas

within, and airspace above, its EEZ, American and other nations' claims to freedom of navigation are diminished, forcing the United States to expend political/diplomatic capital to retain them. Even the threat of a full-bore Chinese propaganda effort sometimes deters nations, including the United States, from pressing contentious issues with China, such as human rights violations, illicit trade practices, and nonproliferation compliance, thereby enabling China to prevail by default.

Conclusions

- China's leaders adamantly resist any activity they perceive to interfere with China's claims to territorial sovereignty. At times this priority conflicts with international norms and practices.
- Some experts within China are attempting to assert a view that China is entitled to sovereignty over outer space above its territory, contrary to international practice. If this becomes Chinese policy, it could set the stage for conflict with the United States and other nations that expect the right of passage for their spacecraft.
- China has asserted sovereignty over the seas and airspace in an Exclusive Economic Zone that extends 200 miles from its coastal baseline. This already has produced disputes with the United States and other nations and brings the prospect of conflict in the future.
- Any assertions by Chinese officials of sovereignty in the maritime, air, and outer space domains are not just a bilateral issue between the United States and China. The global economy is dependent upon the fundamental principles of freedom of navigation of the seas and air space, and treatment of outer space as a global "commons" without borders. All nations that benefit from the use of these domains would be adversely affected by the encroachment of Chinese sovereignty claims.
- China's efforts to alter the balance of sovereignty rights are part of its overall access control strategy and could have an impact on the perceived legitimacy of U.S. military operations in the region, especially in times of crisis.
- China is building a legal case for its own unique interpretation of international treaties and agreements. China is using "lawfare" and other tools of national power to persuade other nations to accept China's definition of sovereignty in the maritime, air, and space domains.

SECTION 3: THE NATURE AND EXTENT OF CHINA'S SPACE AND CYBER ACTIVITIES AND THEIR IMPLICATIONS FOR U.S. SECURITY

"The Commission shall investigate and report exclusively on—
...

"REGIONAL ECONOMIC AND SECURITY IMPACTS—The triangular economic and security relationship among the United States, [Taiwan], and the People's Republic of China (including the military modernization and force deployments of the People's Republic of China aimed at [Taiwan]), the national budget of the People's Republic of China, and the fiscal strength of the People's Republic of China in relation to internal instability in the People's Republic of China and the likelihood of the externalization of problems arising from such internal instability. ..."

Introduction

China's government is devoting a great deal of attention and resources to developing outer space and cyber space capabilities. China's military strategists view the U.S.' dependence on space assets and information technology as its "soft ribs and strategic weaknesses."¹⁵⁷ These investments by China's military potentially could provide it with an asymmetric* capability enabling it to prevail in a conflict with U.S. forces.

China's developments in these fields are significant and have affected other nations. For example, German Prime Minister Angela Merkel complained during a trip to China in 2007 about cyber intrusions of German government computers she said originated in China.¹⁵⁸

China's Space Program

China's space program consists of a wide range of activities, including military intelligence and reconnaissance, earth monitoring, research and development, scientific exploration, communications and media, and military command and control. The program contributes to the country's military power, economic development, and internal stability.¹⁵⁹ One facet of the space program is pro-

*Asymmetric is defined as "systems to leverage China's advantages while exploiting the perceived vulnerabilities of potential opponents." Office of the Secretary of Defense, *Annual Report to Congress: Military Power of the People's Republic of China, 2005*.

viding increased capabilities to the People's Liberation Army (PLA) to collect and exploit battlefield information.¹⁶⁰ Other facets, such as China's kinetic antisatellite (ASAT) system and a variety of non-kinetic space weapons, increase the offensive ability of China's forces and consequently their ability to dominate the battle space.¹⁶¹

China's space program earns revenue by providing launch services for other countries such as Brazil, Venezuela, and Nigeria. The investments China makes in its space program stimulate innovation, which in turn creates new technologies¹⁶² that can satisfy both domestic needs and the product needs of China's exporting industries. Economic growth is viewed by the Chinese leadership as inextricably linked to its legitimacy and political monopoly. Additionally, the space program indirectly promotes internal stability by enhancing the prestige of the Chinese government and increasing national pride. Applications of the space program increase the government's ability to respond to domestic unrest or natural disasters.¹⁶³ For example, through earth monitoring the government can map and track the impact of floods, typhoons, earthquakes, and other disasters and any resultant population movements.

In broad terms, China's space program benefits China internationally as well as domestically. It does so by improving the nation's technology base and thereby enabling China to engage in and influence global commerce, communications, and technology development. This allows China to work toward its larger strategic goal of becoming an international power¹⁶⁴ and, as described by Ashley Tellis of the Carnegie Endowment for International Peace, it helps China in "recovering the greatness that China enjoyed internationally for most of the last millennium."¹⁶⁵

Although there has been a wide consensus internationally with respect to the definition and limitations of sovereignty and appropriate activity in space since the adoption of the 1967 Outer Space Treaty, China—the world's newest space-faring nation—has begun to assert new views of sovereignty in outer space. Jim Lewis of the Center for Strategic and International Studies and Phillip Meek of the U.S. Air Force addressed these issues for the Commission. They explained how China uses "legal warfare" or "lawfare" as a preemptive strategy for advancing its positions on outer space. For example, one Chinese author argues that "there is no clear standard in international law as to the altitude to which territorial space extends."¹⁶⁶ (For a more detailed discussion of this issue, see chap. 2, sec. 2, "China's Views of Sovereignty and Methods of Controlling Access to its Territory.")

The Characteristics of China's Space Program

China became the world's third space-faring nation in October 2003, when it put a man into space using its own rocket. Two years later, in October 2005, it sent two "taikonauts" into space on the Shenzhou VI spacecraft. China's third manned mission occurred in September 2008 and included the first extravehicular activity (i.e., "spacewalk") by Chinese taikonauts.¹⁶⁷ China already has a space vehicle orbiting the moon and plans to explore the lunar surface with a remote rover vehicle around 2015, with possible manned missions after that.¹⁶⁸

Today, China's space program is comprehensive and incorporates all features from design to launch, and from managing exploitation of space assets to controlling their operation.¹⁶⁹ The country's large and well-diversified research and development base currently has approximately 200,000 engineers working in various disciplines, to include space nuclear power, propulsion, materials, multispectral sensors, and robotics.¹⁷⁰ In addition,

- China launched its first data relay and tracking satellite in April 2008, giving its military real-time intelligence and collection capability.

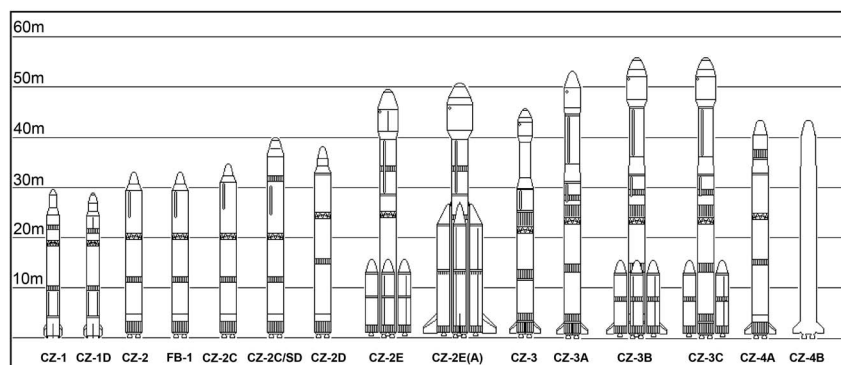
MILITARY USES OF SATELLITES ¹⁷¹

- **imagery:** purposes range from identifying targets to detecting the effects of underground nuclear detonations.
- **navigation:** purposes range from locating targets to guiding weapon systems. There are two main global navigation systems: the U.S. military's global positioning system, or GPS, and the Russian GLONASS system.
- **signals intelligence (SIGINT):** purposes range from detecting to capturing communications, including broadcasting signals.
- **telecommunications (telecoms):** in military operations, purposes include enabling exchange of information between "front-line" and strategic commanders.
- **early warning:** the purpose is to use infrared sensors to spot missile launches by detecting their infrared signatures.
- **meteorology:** the purpose is to collect weather data, enabling meteorologists to provide more accurate forecasts for the military.

Satellites relay data to ground stations where the data are processed.

- China's military space program possesses a number of space launch vehicles with varying capabilities. There are many different configurations of its Long March Series capable of supporting different payloads. Space launches currently are supported by three different launch facilities. China's Pioneer rocket has demonstrated a mobile launch capability.¹⁷²

Family of Chinese Long March Rockets



Source: Federation of American Scientists, April 20, 2005.

- The PLA utilizes an extensive network of ground-based stations for space tracking and data processing. These facilities are spread throughout the country. Supplementing these are four ships that provide support beyond China's borders to its space operations.¹⁷³ In addition, it is reported that China operates overseas space telemetry tracking stations in Pakistan, Kiribati, Kenya, and Namibia.¹⁷⁴

- China's large suite of satellites includes an extensive communications capability. These dual-use systems include Chinasat, APStar, Asiasat, and Sinosat. China maintains numerous satellites for imagery intelligence, remote sensing, synthetic aperture radar imagery, and oceanographic and environmental monitoring, including the Ziyuan, CBERS-2, Haiyin, Jianbing, and Huanjing series. China also has electronic and signals intelligence satellites. Its Compass¹⁷⁵ system is similar to the U.S. GPS system in that it provides positional data that enable China accurately to direct missiles against targets at extended ranges.¹⁷⁶ There currently are five Compass satellites operating over eastern China and the western Pacific Ocean with an additional 30 planned.¹⁷⁷

- China recently has strengthened the integration of its dual-use space assets and PLA operations. This increasingly allows the military to meet its needs—including intelligence collection, force planning, military operations, and battle assessment—with the space architecture already in place. This system is secure, survivable, and interoperable down to the lowest levels of the PLA.¹⁷⁸

- China has significant antisatellite capabilities. The capabilities go far beyond those demonstrated in the January 2007 "test" that destroyed an obsolete Chinese weather satellite. They include co-orbital direct attack weapons and directed energy weapons for dazzling or damaging satellites, both of which currently are under development.¹⁷⁹ China also is researching technology for electronic attack,¹⁸⁰ such as jamming, against an adversary's space assets as well as its ground support networks.¹⁸¹ Some Chinese authors think that "battlefield situational awareness" is so critical to modern combat operations that China must be able and ready to "destroy or jam" an adversary's situational awareness systems.¹⁸²

The Management Structure for China's Space Programs

Kevin Pollpeter from the Defense Group Incorporated writes:

China's space program is inherently military in nature. While cooperation does exist between NASA [the National Air and Space Administration] and the U.S. military, the Chinese space program lacks the bureaucratic walls which make NASA a predominantly civilian organization in both focus and culture. Indeed, China's space program is a military-civilian joint venture in which the military develops and operates its satellites and runs its infrastructure, including China's launch sites and satellite operations center. The China National Space Administration, often incorrectly referred to as China's NASA, mainly functions as a civilian front for international cooperation and as a liaison between the military and defense industry. In fact, the China National Space Administration does not even manage [some] important space cooperative activities. ...¹⁸³

China does not distinguish between a military space program and a civilian program. The People's Liberation Army operates China's satellites as well as all terrestrial launch and support facilities. This structure ensures the primacy of military interests, while it seeks to integrate the civilian applications.¹⁸⁴ Peng Qiang, a senior manager for China's lunar mission, when meeting with visitors from a U.S. think tank, refused even to discuss the operation of China's space control center, "because it is run by the military."¹⁸⁵

The Key Military Objectives of China's Space Program

According to Jing-dong Yuan, a professor at the Center for Non-proliferation Studies at the Monterey Institute of International Studies, China has concluded that space is an essential arena for future warfare and is important not only for improving intelligence gathering but also for enhancing command and control of combat forces. Previously, China opposed any military use of space.¹⁸⁶ However, in 2002 the government shifted its position and limited its opposition to weapons in space.¹⁸⁷ Changing directions again in its 2006 Defense White Paper, China completely omitted any indication of opposition to military equipment or weapons in space.¹⁸⁸ There continue to be discrepancies in China's public statements and actions on this topic. In September 2008, a PLA general and current director of the government-related think tank the Chinese Institute for International Security Studies, Xiong Guangkai, stated that China firmly opposes the militarization of space.¹⁸⁹ This is despite the fact that China tested an antisatellite weapon in 2007 and continues to put military-related satellites in space.

In February 2008, China entered the space militarization debate again by jointly sponsoring with Russia a proposed treaty at the United Nations (UN) Conference on Disarmament that prohibits "the placement of weapons in outer space" and the "use of force against outer space objects."¹⁹⁰ But China's rhetorical stance favoring only peaceful uses of space has not limited its work to harness space for military advantage. In the near term, China's military space program aims to counter U.S. capability asymmetrically in order to reduce the advantage the United States enjoys from the

quantity and superior capabilities of its weapons and the quality of its combat forces. China is focusing its space efforts on developing capabilities that target potential strategic vulnerabilities of the United States. During the period from 2006 to 2020, China aims to build comprehensive national power that includes not only military strength but also economic strength and diplomatic influence.¹⁹¹ (For additional discussion see chap. 2, sec. 2, “China’s Views of Sovereignty and Methods of Controlling Access to its Territory.”)

The People’s Liberation Army characterizes its strategy in broad terms as an active defense.¹⁹² However, as PLA strategist Chen Zhou explained in a Communist Party publication in March 2008, China must “pay great attention to carrying out offensive activities aggressively and organizing preemptive strikes.”¹⁹³ Practically speaking, the strategy not only has defensive elements but also has many that are offensive in nature—which Chinese officers sometimes acknowledge. With reference to space, China could use laser technology to blind temporarily a U.S. reconnaissance satellite operating over international waters. This action could be viewed by many as purely defensive. However, China also could use its ASAT capability to destroy a U.S. satellite operating over its territory. While the immediate goal is the same, many who might be willing to characterize blinding as defensive would regard destruction as offensive.¹⁹⁴ The offensive attributes of China’s strategy are a cause of concern to the United States.

In addition to its existing space program, China plans to continue aggressively developing a wide array of space and counter-space capabilities.¹⁹⁵ Its space plans include the following:

- Launching 15 rockets and 17 satellites in 2008.¹⁹⁶
- Developing a new line of rocket engines that will provide China with heavy lift capability similar to the U.S. Air Force Evolved Expendable Launch Vehicle.¹⁹⁷ This line is scheduled to become operational in 2010 and is required for heavier payloads such as space station modules or larger satellites.¹⁹⁸
- Performing in-orbit docking of two orbital modules. This capability is required in order to construct and operate a manned space station.¹⁹⁹
- Developing a small lunar rover by 2015. A successful lunar rover mission may lead to a successful lunar sample mission providing scientific insight into the composition of the lunar soil.²⁰⁰
- Implementing a high-resolution Earth observation system.²⁰¹ Satellite photographs have a wide variety of military and civilian uses, and increased resolution will improve the utility of this capability.
- Developing ground relay stations for remote-sensing satellites.²⁰² These stations will allow increased access to satellite information, enabling their data to be available for greater periods, even in some cases after satellites move over the horizon.
- Improving the Compass navigation satellite system.²⁰³ This system will use a much larger number of nonstationary satellites than China currently is employing for this purpose and aims for worldwide coverage.

- Launching geostationary orbit telecommunications satellites.²⁰⁴ Each of these satellites will provide uninterrupted communications for users in the portion of the globe covered by its “footprint.”

The Impact of China’s Space Program on U.S. Security

The potential effect of China’s space program on U.S. national security is significant. First, it is steadily increasing the vulnerability of U.S. assets. Improvements in its imagery and intelligence satellites will enable China to locate U.S. assets such as carrier battle groups more accurately and rapidly and from greater distances. Improved communications satellites will enable China to pass important targeting information more quickly and securely to guided missiles or other weapon systems. Improved GPS-type navigational and weather satellites will enable missiles to fly more accurately to their targets. Finally, the cycle is completed by the battle damage assessment that imagery and intelligence satellites provide to Chinese commanders as weapon systems engage their targets.²⁰⁵

Many U.S. weapon systems and deployed military forces depend on space support for targeting, navigational, and communications support. A large portion of the U.S. space systems’ architecture consists of ground-based nodes and centers located around the United States and the globe far from the battlefield.

The ground nodes and centers in space or on the ground are critical elements of U.S. military power. As such, they are potential targets for China. Some Chinese strategists believe that space-related installations, including ground stations, are so critical that they are valid targets during a conflict.²⁰⁶ China could choose to engage these critical assets physically with missiles or nonkinetically through means such as a computer network attack.²⁰⁷

China’s growing reliance on space for military purposes increases the likelihood that any future conflict between China and the United States will involve actions directed against each other’s space systems’ assets. These offensive and defensive actions may be directed against either assets.

China’s Cyber Operations Program

U.S. computer security authorities detected a series of cyber intrusions in 2002 into unclassified U.S. military, government, and government contractor Web sites and computer systems. This large-scale operation, code named Titan Rain by the U.S. government, was attributed to China.²⁰⁸ Targeted locations included the U.S. Army Information Systems Engineering Command, the Naval Ocean Systems Center, the Missile Defense Agency, and Sandia National Laboratories. Major General William Lord from the U.S. Air Force Office of Warfighting Integration, speaking at an information technology conference, said that China downloaded 10 to 20 terabytes of data.²⁰⁹ For comparison, the entire print collection of the Library of Congress contains approximately 10 terabytes of data. In addition to seeking to acquire important information about military and government activities, the operation conducted reconnaissance of the U.S. command and control system, gaining infor-

mation that could be used for future targeting. The U.S. Strategic Command reported that in 2007, the Department of Defense estimated that five million computers experienced 43,880 incidents of malicious activity from all sources—a 31 percent increase over the previous year.²¹⁰

TYPES OF COMPUTER NETWORK OPERATIONS ²¹¹

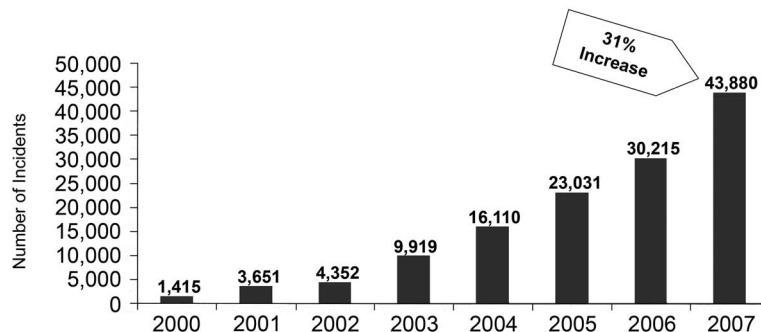
Computer Network Operations (CNO): Comprised of computer network attack (CNA), computer network defense (CND), and related computer network exploitation (CNE) enabling operations.

Computer Network Attack (CNA): Actions taken via computer networks to disrupt, deny, degrade, or destroy information residing in computers and computer networks, or the computers and networks themselves.

Computer Network Defense (CND): Actions to protect information systems and computer networks, and to monitor for, analyze, detect, and respond to unauthorized activity within those networks.

Computer Network Exploitation (CNE): Actions to gather data from target information systems or networks or map target networks for future CNA operations.

U.S. Department of Defense (DoD) Reported Incidents of Malicious Cyber Activity



Source: U.S.-China Economic and Security Review Commission, Hearing on China's Proliferation Practices, and the Development of its Cyber and Space Warfare Capabilities, testimony of Colonel Gary McAlum, Washington, DC, May 20, 2008.

China's Incorporation of Cyber Operations into its Warfare Arsenal

Colonel Gary McAlum, chief of staff for the U.S. Strategic Command's Joint Task Force for Global Network Operations, testified to the Commission that China has recognized the importance of cyber operations as a tool of warfare, as demonstrated by the increased resources and training it is focusing on cyber operations. The training addresses both cyber attacks and cyber intrusions. Colonel McAlum said that China currently has the intent and capa-

bility to conduct cyber operations anywhere in the world at any time. China has an active cyber espionage program. Since China's current cyber operations capability is so advanced, it can engage in forms of cyber warfare so sophisticated that the United States may be unable to counteract or even detect the efforts.²¹²

By some estimates, there are 250 hacker groups in China that are tolerated and may even be encouraged by the government to enter and disrupt computer networks.²¹³ The Chinese government closely monitors Internet activities and is likely aware of the hackers' activities. While the exact number may never be known, these estimates suggest that the Chinese government devotes a tremendous amount of human resources to cyber activity for government purposes. Many individuals are being trained in cyber operations at Chinese military academies,²¹⁴ which does fit with the Chinese military's overall strategy, according to the U.S. Department of Defense's 2008 *Annual Report to Congress: Military Power of the People's Republic of China*.²¹⁵

Other nations are concerned about the level, sophistication, and orientation of China's cyber operations. During the Commission's visit to Japan in August 2008, a representative of the Ministry of Defense told Commissioners that the ministry's newest white paper to be released in September 2008 would discuss outer space and cyber space as areas in which China has "great interest" (and the white paper did so).²¹⁶ During that same Commission trip, Taiwan's Defense Minister Chen Chao-min acknowledged that Taiwan anticipated a potent cyber attack, were it to become involved in an open conflict with China, and told Commissioners that he had established a special task force to examine the issue and recommend steps Taiwan could take to reduce its cyber vulnerability.

According to Tim Thomas, an expert on People's Republic of China (PRC) cyber operations from the U.S. Army's Fort Leavenworth Foreign Military Studies Office, cyber operations have several appealing characteristics from a military viewpoint. The first is that the warning time for an attack, and the time frame for defensive response, is extremely limited. Cyber attacks travel at the speed of light and require little physical preparation. A second appeal is the lack of attribution. Cyber operations can take a layered and circuitous route to the target, so that only the last computer utilized in the series can be identified. Therefore, the victim's ability to retaliate accurately is hindered or eliminated. A third appeal is that cyber operations can confuse and frustrate the target nation. Cyber attacks can target power grids, financial systems, and other critical infrastructure, rendering them inoperable, thereby constituting the same effect as a kinetic attack (a traditional military strike using physical force). However, even if the culprit can be reliably identified (which is difficult to accomplish), the target nation may lack an effective means to mount a cyber counter-attack. Retaliating kinetically may be seen by both the nation against which a retaliatory strike is executed and, importantly, by other nations and multilateral organizations as both unjustified and escalatory.²¹⁷ One reason this may be viewed as unjustified is because there is no clear consensus on when a cyber attack constitutes an act of war.

Vulnerable U.S. Cyber Infrastructure

Private sector networks in the United States, networks operated by civilian U.S. government agencies, and unclassified U.S. military and intelligence agency networks increasingly are experiencing cyber intrusions and attacks. Although classified military and intelligence networks are designed to be protected by insulation from the Internet, networks connected to the Internet are vulnerable even if protected with hardware and software firewalls and other security mechanisms. The government, military, businesses and economic institutions, key infrastructure elements, and the population at large of the United States are completely dependent on the Internet. Internet-connected networks operate the national electric grid and distribution systems for fuel. Municipal water treatment and waste treatment facilities are controlled through such systems. Other critical networks include the air traffic control system, the system linking the nation's financial institutions, and the payment systems for Social Security and other government assistance on which many individuals and the overall economy depend. A successful attack on these Internet-connected networks could paralyze the United States.

China is targeting U.S. government and commercial computers for espionage. Alan Paller from the SANS Institute, an Internet security company, believes that in 2007 the 10 most prominent U.S. defense contractors, including Raytheon, Lockheed Martin, Boeing, and Northrop Grumman, were victims of cyber espionage through penetrations of their unclassified networks.²¹⁸ In 2005 hackers from China exfiltrated a stockpile of files on the National Aeronautics and Space Administration (NASA) Mars Reconnaissance Orbiter, including files on the propulsion system, solar panels, and fuel tanks. In the same year, the aviation mission planning system for army helicopters and flight planning software used by the army and air force were stolen from the Army Aviation and Missile Command at Redstone Arsenal, Alabama.²¹⁹

An excellent example of the problem the United States faces is the unclassified U.S. military network called the NIPRNet (Non-secure Internet Protocol Router Network). This network is the most vulnerable military network.²²⁰ (It is separate from the SIPRNet [Secret Internet Protocol Router Network] that carries classified information.) Despite the fact it is an unclassified system, the NIPRNet is crucial to the effective operation of the U.S. military, during both peace and war. The traffic it carries includes all DoD bill payments; the daily calendars for admirals and generals; troop and cargo movements; aircraft locations and movements; aerial refueling missions; medical records for military personnel and their dependents; soldier and officer evaluation reports; unit deployment information; and all e-mails among Department of Defense and military personal digital assistant communications devices.

The NIPRNet is vulnerable because it connects to the World Wide Web. While these connections allow it to access the Internet, they also provide an opportunity for unauthorized intrusions. Intrusions could have a variety of nefarious purposes, including stealing sensitive information or planting viruses or other malware that could be activated during a time of crisis and cripple the systems into which they had been inserted. There currently are 17 connec-

tions between the NIPRNet and the Internet. DoD is decreasing that number to simplify monitoring and security procedures. However, DoD is so dependent on the functions that cross the NIPRNet that it also must take into account the risk of providing too few portals. The risk is that vital functions could not be carried out if several portals became inoperable.²²¹

China can access the NIPRNet²²² and views it as a significant Achilles' heel and as an important target of its asymmetric capability.²²³ The ability to manipulate or disable the NIPRNet, or to use it to disable discrete, defense-related functions that depend on it, gives China the potential capability to delay or disrupt U.S. forces without physically engaging them—and in ways it lacks the capability to do conventionally.²²⁴

In the past two decades, China has observed how the U.S. military has operated successfully overseas and also has noted that the United States in many cases utilizes a deployment or buildup phase. Examples include the first Gulf War, Kosovo, and Operation Iraqi Freedom. Due to the great distances in the Pacific area of operations, were the United States to think a conflict near China was probable, the U.S. military would begin its preparations with a deployment or buildup phase. China is depending on this and believes that, by cyber attacking U.S. logistics functions in the early buildup stages of a conflict, it can delay or disrupt U.S. forces moving to the theater.²²⁵ This conceivably could alter the course of a conflict over Taiwan. China views Taiwan's will to fight as the key to success, and Chinese authors postulate that successfully delaying a U.S. response after a hard and fast strike against Taiwan will create a window of opportunity in which it may be possible to force Taiwan to capitulate.²²⁶

In operationalizing this cyber strategy, authors of China's military doctrine have articulated five key elements. These elements are the following:²²⁷

- Defense. Many Chinese authors believe the United States already is carrying out offensive cyber espionage and exploitation against China. China therefore must protect its own assets first in order to preserve the capability to go on the offensive.
- Early use. PLA analysts believe that in many cases a vulnerable U.S. system could be unplugged in anticipation of a cyber attack. Therefore, for an attack to be truly effective, it must be launched early in a conflict before the adversary has time fully to protect itself.
- Information operations. Cyber operations can be used to manipulate an adversary's perception of the crisis, such as by planting misinformation. This could obviate the need for a conventional confrontation or advantageously shape an adversary's response.
- Attacking an enemy's weaknesses. China's strategists believe the United States is dependent on information technology and that this dependency constitutes an exploitable weakness.
- Preemption. Many PLA strategists believe there is a first mover advantage in both conventional and cyber operations against the United States. Therefore, in order to succeed, they should strike first.

The global supply chain for telecommunications items introduces another vulnerability to U.S. computers and networks. Components in these computers and networks are manufactured overseas—many of them in China. At least in theory, this equipment is vulnerable to tampering by Chinese security services, such as implanting malicious code that could be remotely activated on command and place U.S. systems or the data they contain at risk of destruction or manipulation. In a recent incident, hundreds of counterfeit routers made in China were discovered being used throughout the Department of Defense.²²⁸ This suggests that at least in part, Defense Department computer systems and networks may be vulnerable to malicious action that could destroy or manipulate information they contain.

Conclusions

- China continues to make significant progress in developing space capabilities, many of which easily translate to enhanced military capacity. In China, the military runs the space program, and there is no separate, distinguishable civilian program. Although some Chinese space programs have no explicit military intent, many space systems—such as communications, navigation, meteorological, and imagery systems—are dual use in nature.
- The People's Liberation Army currently has sufficient capability to meet many of its space goals. Planned expansions in electronic and signals intelligence, facilitated in part by new, space-based assets, will provide greatly increased intelligence and targeting capability. These advances will result in an increased threat to U.S. military assets and personnel.
- China's space architecture contributes to its military's command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) capability. This increased capability allows China to project its limited military power in the western and southern Pacific Ocean and to place U.S. forces at risk sooner in any conflict.
- Cyber space is a critical vulnerability of the U.S. government and economy, since both depend heavily on the use of computers and their connection to the Internet. The dependence on the Internet makes computers and information stored on those computers vulnerable.
- China is likely to take advantage of the U.S. dependence on cyber space for four significant reasons. First, the costs of cyber operations are low in comparison with traditional espionage or military activities. Second, determining the origin of cyber operations and attributing them to the Chinese government or any other operator is difficult. Therefore, the United States would be hindered in responding conventionally to such an attack. Third, cyber attacks can confuse the enemy. Fourth, there is an underdeveloped legal framework to guide responses.
- China is aggressively pursuing cyber warfare capabilities that may provide it with an asymmetric advantage against the United States. In a conflict situation, this advantage would reduce current U.S. conventional military dominance.

RECOMMENDATIONS

China's Proliferation Policies and Practices

- The Commission recommends that Congress encourage the administration to seek dialogue on civil nuclear security and to cooperate with China to ensure that its rapid expansion of civil nuclear power does not result in a decline in safety standards or lead to the proliferation of nuclear weapons expertise, technology, or related materials.
- In order to prevent the proliferation of weapons technology, the Commission recommends that Congress urge the administration to enhance its cooperation with China in strengthening export control and border control programs and in improving the capacity of Chinese officials to implement those programs.

China's Views of Sovereignty and Methods of Controlling Access to its Territory

- The Commission recommends that Members of Congress during interparliamentary exchanges with their counterpart members of China's National People's Congress reiterate the commitments that China has made as a party to the Outer Space Treaty of 1967 and the United Nations Convention on the Law of the Sea.
- The Commission recommends that Congress direct the U.S. departments of State and Defense to examine the implications of China's use of media manipulation and "lawfare" for U.S. foreign policy and military activities.

The Nature and Extent of China's Space and Cyber Activities and their Implications for U.S. Security

- The Commission recommends that Congress assess the adequacy of and, if needed, provide additional funding for military, intelligence, and homeland security programs that monitor and protect critical American computer networks and sensitive information, specifically those tasked with protecting networks from damage caused by cyber attacks.
- The Commission recommends that Congress urge the administration to engage in consultations with its allies on an alliance-based approach to dealing with cyber attacks originating in China.
- In order to maintain the security of computer networks used by U.S. government agencies and defense contractors, the Commission recommends that Congress assess the security and integrity of the supply chain for computer equipment employed in those

government and contractor networks—particularly those used by the Department of Defense—and, if necessary, provide additional funding to ensure the acquisition of equipment from trustworthy sources.

- The Commission recommends that Congress urge the administration to engage China in a military dialogue on its actions and programs in cyber and space warfare, including threat reduction mechanisms, transparency initiatives, and international laws of conflict as they apply to the cyber and space domains.

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CHAPTER 3

CHINA'S ENERGY AND ENVIRONMENT POLICIES AND ACTIVITIES

SECTION 1: CHINA'S CURRENT ENERGY PICTURE

“The Commission shall investigate and report exclusively on—
...

“ENERGY—The effect of the large and growing economy of the People's Republic of China on world energy supplies and the role the United States can play (including joint research and development efforts and technological assistance) in influencing the energy policy of the People's Republic of China. ...”

Introduction

China's economy, energy use, and environment are inextricably linked. A secure energy supply is needed to fuel economic growth. Energy consumption, particularly combustion of carbon fuels, produces environmental pollution, and this pollution has direct economic and social costs. Eliminating or mitigating the effects of pollution, or moving to nonpolluting energy sources, also entails economic costs and requires changes in personal, community, corporate, and national behavior and often can be accomplished only with the government's concerted initiative.

These linkages are not unique to China; China and the United States face similar challenges in devising energy policy, securing sufficient energy supplies to support the national economy and the desired standard of living, and addressing such related issues as climate change. Acting Assistant Secretary of Energy for Policy and International Affairs Katharine Fredriksen testified before the Commission about China's approach to these challenges:

China's energy consumption patterns will continue to impact global energy markets and the environment over the coming decades. ... China is thus, like the United States, constrained by ever-growing demands for energy resources and the need to balance its energy requirements with environmentally responsible policies. The size of our two countries and our combined impact on global energy markets inextricably link our energy security goals.¹

Given the importance to China of a reliable energy supply to fuel its economic growth, and the reality of global commodity markets, it is understandable that energy security has become an important consideration for China's domestic politics and foreign policy. What China does in this arena likely will have a large impact on the United States and therefore on U.S.-China relations.

This section of the Commission's Report outlines the basic facts and figures of China's energy picture—its growing consumption and constrained supply and the environmental impacts of its energy use. Based on this picture, in the following section (sec. 2) the Commission examines the energy challenges facing China and how China is dealing with them and considers how the United States can promote improved energy security for both countries by supporting and urging China to strengthen global energy markets; invest in clean, efficient energy production; and mitigate pollution.

China's Energy Consumption

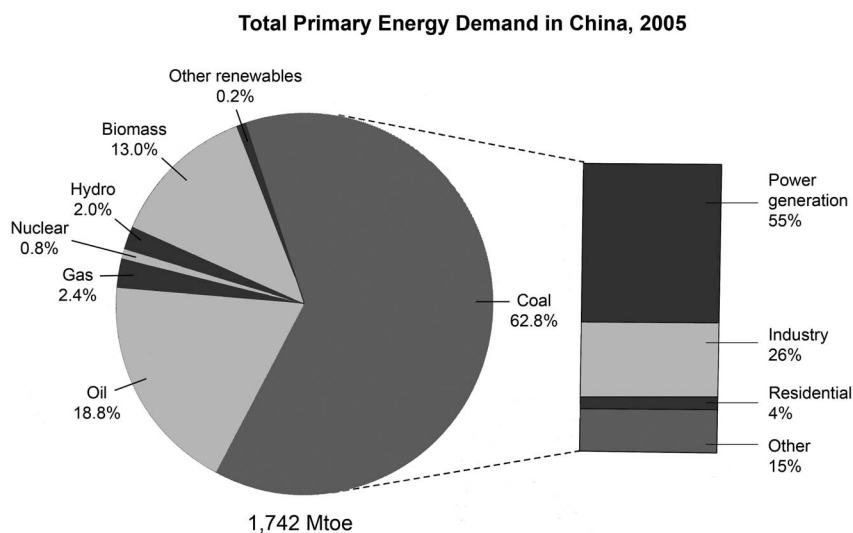
The International Energy Agency's (IEA) *World Energy Outlook: China and India Insights, 2007* states, "In less than a generation, China has moved from being a minor and largely self-sufficient energy consumer to become the world's fastest-growing energy consumer and a major player on the global energy market."² China quadrupled its gross domestic product (GDP) between 1980 and 2000 while only doubling the amount of energy it consumed—a notable accomplishment. However, with its adoption of policies promoting energy-intensive industries such as steel and cement, this trend reversed between 2002 and 2005, and energy consumption has increased dramatically.³ This growth in energy consumption reflects how economic priorities have affected consumption patterns. Government-supported industrial production raised demand for coal-fired electricity generation, and increased car ownership that was enabled by rising incomes in the increasingly prosperous economy fueled demand for oil.

Manufacturing consumes 60 percent of the energy China uses, with the bulk of that attributable to production of aluminum, steel, chemicals, paper, and cement.⁴ The IEA *World Energy Outlook* reports, "Soaring energy use is both a driver and a consequence of the remarkable growth in the country's economy—especially in heavy industry."⁵ The iron and steel sector is the largest consumer of energy in China, accounting for nearly 28 percent of total industrial energy use in 2005.⁶ China manufactures one out of three tons of steel produced globally, and at present its surging economy consumes approximately 85 percent of this steel domestically.⁷ This is an exception in China's economy, however. China exports a large amount of energy-intensive products. For example, one out of two foundations poured in the United States uses Chinese cement.⁸ The IEA's *World Energy Outlook* published in 2007 estimates that the energy embedded in China's domestic production of goods for export equaled 28 percent of the country's total energy consumption in 2004. (However, the IEA emphasized the speculative nature of this estimate, noting that calculating embedded energy is very difficult because of the nature of global trade and outsourcing.)⁹

A growing share of energy demand comes from China's growing transportation sector. That sector was responsible for 29.8 percent of China's total petroleum consumption in 2005, and this consumption is expected to increase to 47 percent in 2030. In 2020, the transportation sector will consume 6 million barrels of oil per day.¹⁰ As Chinese society becomes more affluent, many Chinese people are seeking to use their wealth to purchase cars. As a result, China has become the world's second-largest vehicle market and the third-largest vehicle producer.¹¹ This growth is projected to increase as China's economy grows and the nation's population becomes increasingly urbanized. The IEA predicts that by 2030, more than half of China's oil consumption will fuel the transportation sector.¹²

The Composition of China's Current Energy Demand

Coal supplies approximately 63 percent of China's energy consumption, and China is the largest coal consumer in the world. Coal-burning power plants supply 80 percent of China's electricity.¹³ Nearly 19 percent of China's energy demand is met with petroleum products, and China's consumption of 7.2 million barrels per day in 2006 ranks second in the world behind U.S. consumption.¹⁴ In addition to consuming coal and oil, China uses natural gas, renewable energy, and nuclear energy. Collectively they supply the remaining 19 percent of China's energy demand.¹⁵



Source: International Energy Agency, 2007.

The *World Energy Outlook* reports that China will overtake the United States in energy consumption by 2010.¹⁶ If China's economic growth stays on its current trajectory, by 2030 its projected energy consumption will surpass that of the United States by 20 percent—compared with 2005, when China consumed 25 percent less energy than the United States.¹⁷ This is a sea change—with profound implications for the United States and the world. Through 2030, the proportional distribution of China's energy demand among coal, oil, and other resources is not expected to change significantly, but that demand is expected to increase at an annual growth rate of 3.2 percent. The *World Energy Outlook* projects that through 2030, the increased energy demand from China and India—two of the world's largest emerging economies—will comprise more than 45 percent of the increase in world energy demand.¹⁸

China's Energy Supply

In securing its energy supply—a priority for achieving energy security—Beijing must balance several competing factors affecting both the reliability and the availability of energy supplies. Edward Steinfeld, an energy and China expert at the Massachusetts Institute of Technology, writes,

*The nature of China's 'energy security' challenge goes beyond the fact that growth and modernization alone are not solutions to the supply-demand gap. In the broadest sense, energy security involves the accommodation of difficult-to-reconcile objectives: adequate energy for long-term economic growth, energy that can be secured without exposure to undue geopolitical risk, energy supply and utilization consistent with long-term public health, and energy supply flexible enough to meet rising popular expectations for public and private goods.*¹⁹

To manage these challenges, China seeks a reliable fuel supply from an array of sources.

China has abundant coal resources and is the world's largest coal producer. Its recoverable reserves are the third largest in the world, behind the United States' and Russia's.²⁰ Despite its high level of coal production and the fact it exports a portion of that production, China became a net importer of coal in the first six months of 2007, with imports primarily from Australia, Vietnam, and Indonesia.²¹ This apparent paradox has a logical explanation: China concluded that it is more efficient and economical to avoid transportation bottlenecks between the interior regions where China's coal is mined and coastal regions, which consume the majority of supplies, by exporting some of the coal it has produced while importing some coal directly to the consuming locations in coastal areas. The IEA expects coal production to increase in China, but this expectation hinges on the government's restructuring of the coal industry to address the transportation bottlenecks and improve mining productivity.²²

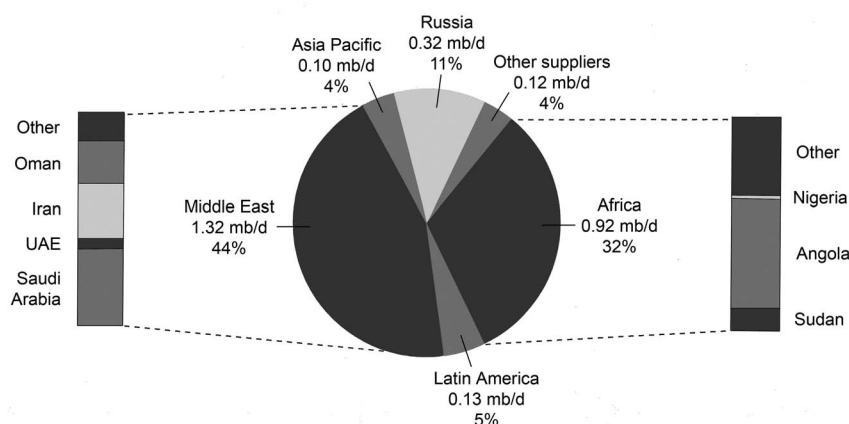
In 2007, the U.S. Energy Information Administration estimated that China produced 3.9 million barrels of oil per day,²³ the majority on land. The IEA's *World Energy Outlook* notes that most of China's onshore oil production fields are more than 50 percent de-

pleted. Without the discovery and exploitation of new reserves, China's domestic oil production is expected to level off by 2012 and then decline.²⁴

To meet its demand of 7.5 million barrels per day, China must import approximately 3.7 million barrels per day.²⁵ Of these imports, 80 percent were in the form of crude oil. China's imports of refined oil products primarily consisted of fuel oil.²⁶ These imports are expected to increase to 13.1 million barrels per day by 2030. By 2010, China is projected to overtake Japan to be the world's second largest oil importer after the United States.²⁷

China is largely reliant on the international market for obtaining oil imports. It purchases the majority of its imports from Middle East and African production. In 2006, Angola became the single nation supplying the largest amount of crude oil to China, with Saudi Arabia as the second largest supplier.²⁸ Russia supplied 11 percent of China's oil imports (delivered overland by rail).²⁹

China's Crude Oil Imports by Origin in 2006



Source: International Energy Agency, 2007.

The great majority of these imports must traverse the Malacca Strait south of Singapore. This is recognized as a point of substantial—and discomfoting—vulnerability in the supply chain, because it is a natural chokepoint where passage can be obstructed and because China and other countries rely on an active U.S. naval presence to secure the ability to traverse the strait. For this reason, China's government has supported the search for alternative overland delivery routes and for sources whose production more easily could be transported to China via those routes. Toward this end, China has fostered relationships with Central Asian nations, particularly Kazakhstan, and also Russia, and has sought to obtain oil produced by, or transported through pipelines across, those nations. Moreover, to secure a readily available emergency supply, China is building a strategic petroleum reserve and intends to stock up to 100 million barrels of oil, equivalent to approximately 30 days of oil imports.³⁰ By comparison, the U.S. strategic reserves have an estimated 727 million barrels, equal to 58 days of import protection.³¹

In addition to purchasing oil on the international market, the government of the People's Republic of China (PRC) has supported purchasing equity oil stakes abroad, which allows for ownership of the resources "in the ground." This strategy encourages China's state-owned oil companies to identify and purchase unproduced oil resources abroad and seek production opportunities for those resources. China has acquired exploration and production stakes in countries across four continents, including Sudan, Venezuela, Indonesia, Iran, Kazakhstan, Russia, Canada, and Nigeria.³² The amount of China's current equity production—estimated to be 600,000 barrels per day—is far from sufficient to supply the country's entire oil import demand—even the current demand, much less the projected growing demands of the future.³³ Depending on both circumstances within China and the condition of the global oil marketplace, Chinese state-owned oil companies sometimes transport the equity oil back to China, and at other times they sell it on the open market if it is profitable. Furthermore, these investments provide Chinese oil companies with experience in exploring and developing oil resources and in honing their business and diplomatic skills as they compete with international oil companies for development contracts.³⁴

A Survey of China's Interests in Land-based Energy Investment Projects in Asia

Partnering Country	Type of Project	Details	Time Started/Completed
Bangladesh	Coal Mine	In June 2005, the China National Machinery Import and Export Corporation joined forces with Xuzhou Coal Mining Group Company Ltd. and signed a contract to control the management and production of the Barapukuria mine in Bangladesh. ³⁵	Unclear
Bangladesh	Nuclear Co-operation	In April 2005, an agreement was signed between China and Bangladesh on "nuclear cooperation." In this agreement, China will assist Bangladesh in exploring for nuclear minerals as well as construction of a 600-megawatt nuclear power plant. ³⁶	Unclear
Burma	Oil and Gas	Multiple oil and gas exploration deals were signed by China National Petroleum Corporation and Myanmar's Energy Ministry between October 2004 and January 2005. An additional deal was signed January 2008 related to three deep-sea blocks off the Rakhine coast. ³⁷	Unclear

**A Survey of China's Interests in Land-based Energy
Investment Projects in Asia—Continued**

Partnering Country	Type of Project	Details	Time Started/ Completed
Burma	Oil Pipeline	In March 2007, Chinese and Burmese companies stated their intent to begin construction of the China-Myanmar oil pipeline later the same year. The city of Chongqing may be the destination for this pipeline and will build a refinery to process the oil imports. ³⁸	Project is currently "under discussion." As of March 2008, construction had not been initiated.
Kazakhstan	Acquisition of Petro-Kazakhstan	After approval by a Canadian court, China National Petroleum Corporation acquired PetroKazakhstan from a Canadian company. ³⁹	Initial approval in October 2005. Exact date of acquisition unclear.
Kazakhstan	Oil Pipeline	In 2006, China and Kazakhstan built an oil pipeline from central Kazakhstan to Xinjiang Province of China. A second pipeline is being constructed between China and Kazakhstan that will carry oil and gas from Turkmenistan. ⁴⁰	Unclear
Kyrgyzstan	Electricity/ Power Stations	Chinese electric company representatives are considering constructing electric power stations in Kyrgyzstan. The Chinese also are interested in investing in existing power infrastructure such as the Sarydzhaz and Kambarat hydropower stations. ⁴¹	Unclear
North Korea	Oil	In December 2005, China and North Korea signed a deal jointly to develop offshore oil reserves. No specific information was provided on the location of these offshore sites. ⁴²	Unclear
Pakistan	Electricity/ Power Station	In April 2008, China's Dongfang Electric Corporation and Pakistan's government signed a deal to construct the Chichoki Malian Power Plant in Pakistan. ⁴³	"Within a year" from April 2008. No specific month for target completion provided.

**A Survey of China's Interests in Land-based Energy
Investment Projects in Asia—Continued**

Partnering Country	Type of Project	Details	Time Started/ Completed
Pakistan	Electricity/ Power Stations	In April 2001, Pakistan announced that it would set up a 600 megawatt nuclear power plant at Chashma in the Mianwali district of Punjab with Chinese assistance. An additional 300 megawatt nuclear power plant was completed in Chashma with Chinese assistance in 2001. ⁴⁴ China and Pakistan sealed the agreement in October 2008.	600 megawatt Chashma Plant: Unclear 300 megawatt Chashma Plant: Completed March 2001
Turkmenistan	Gas/Oil Pipeline	In April 2006, China and Turkmenistan signed an agreement to build a gas pipeline to Guangzhou, China. ⁴⁵	Construction began February 22, 2008. Completion date unclear.
Uzbekistan	Oil and Gas	In June 2006, China National Petroleum Corporation announced plans to invest \$210 million in gas and oil exploration in Uzbekistan. ⁴⁶	Unclear
Uzbekistan	Gas Pipe- line	In May 2007, Uzbekistan announced that it will build a gas pipeline to China with an annual throughput capacity of 30 billion cubic meters. No details have been provided on when the project will be completed or which companies will be involved. ⁴⁷	Unclear

Notes:

1. China has expressed its desire to join the Iran-Pakistan-India gas pipeline project. No statements have yet been made indicating official inclusion of China in the project. ("Iran Gas: China Waits as India Wavers," *Asia Times*, March 6, 2008. http://www.atimes.com/atimes/South_Asia/JC06Df03.html).
2. In addition to the major energy deals listed above, many cases of smaller, less extensive Chinese energy investments have been discovered. These cases generally are of Chinese companies purchasing minority stakes in Central Asian energy companies. For example, in March 2003, British Gas International agreed to sell its 8 percent stake in Agip Kazakhstan North Caspian Operating Company (AgipKCO) to China's Sinopec International Petroleum and Production Corporation ("Kazakhstan Economic Review," *Kazkomerts Securities*, January–March 2003. <http://www.kazakhstaninvestment.com/support-files/ker-mar2003.pdf>).

The country's proven natural gas reserves amount to 2 percent of world reserves and are located primarily in offshore regions and in western and north-central China.⁴⁸ In addition to its domestic production, China began importing liquefied natural gas (LNG) in 2006⁴⁹—both via pipeline from Central Asia and Russia and by sea to LNG terminals located in southeastern China.⁵⁰ The IEA

projects that imports of natural gas will increase from 12 billion cubic meters in 2010 to 128 billion cubic meters in 2030.⁵¹

Natural gas has not been an important source of fuel for China in the past, but because the government has established goals for consuming cleaner burning fuels, the use of natural gas is expected to increase.⁵² Indeed, since 2000, China's consumption of natural gas has more than doubled, to more than 60 billion cubic meters in 2006.⁵³ However, the projected increase of natural gas supplies to Chinese households and businesses would require expensive construction of a huge infrastructure consisting of pipelines, terminals, and gasification facilities designed to process imported liquefied natural gas.⁵⁴ With the government's plan to increase China's natural gas consumption to comprise 10 percent of its energy usage, the expense of developing the necessary infrastructure is estimated to be \$50 billion.⁵⁵ Adding to this challenge is the fact that most of China's natural gas is produced in the central and western regions of the country, and demand is concentrated in the southern and eastern regions—and, consequently, the transportation infrastructure and network will have to span a considerable distance.⁵⁶

China's use of renewable energy sources has increased in recent years, in part due to government policies encouraging investment in such sources. China's main renewable source is biomass—organic matter that can be converted into a fuel source.⁵⁷ This source supplied 13 percent of the nation's total energy consumption in 2005, and its consumption of biomass is the largest in the world. In China, biomass resources include agricultural waste, scraps from forestry industries, and municipal waste.⁵⁸ Hydropower also is a significant resource, producing nearly 16 percent of the country's total electricity generated in 2005.⁵⁹ The IEA estimates that small-scale hydropower serves as the main power generation source for about one-third of China's counties, and the potential for further hydropower development in China is considered by experts to be the highest in the world.⁶⁰ However, with more frequent incidents of water shortages in several regions in China, this growth may be checked.

China has increased its development of wind and solar power generation. Wind power capacity doubled between 2005 and 2006. As a result of government incentives supporting investment, wind power capacity is expected to increase to the point where it will supply 1.6 percent of China's electricity production by 2030.⁶¹ In comparison, the United States obtains from wind power roughly 1.2 percent of the energy it consumes, and the amount is growing. The United States leads the world in the rate at which it is increasing its wind power capacity; China ranks second, adding 3,287 megawatts of incremental capacity in 2007.⁶² Solar power generates less electricity, but China is the world leader in deploying solar thermal systems for building heat and hot water supply.⁶³

China's Search for Alternative Energy: Civil Nuclear Power

As China seeks to diversify its energy supply and increase its use of clean energy technologies, it is looking increasingly toward nuclear power to meet future energy needs. Not only does nuclear power represent a more technologically sophisticated power

source—with all the diplomatic weight and prestige that come from possessing and using this technology—but it also is carbon neutral and can generate significant amounts of power. Furthermore, China realistically can strive for self-sufficiency in nuclear power.

China's first civil nuclear reactor went on line in 1991. At present, China has 11 reactors with a total of nine gigawatts of capacity—approximately 2.4 percent of China's total power generation capacity.⁶⁴ China's civil reactors are located primarily in Guangdong and Zhejiang provinces, and six new reactors are under construction in Fujian, Guangdong, Zhejiang, and Liaoning provinces.⁶⁵ China has adopted plans to increase significantly the number of operational nuclear reactors in the next 15 years, but even with this expansion, nuclear power is expected to meet only 5 percent of China's total power generation needs.

The state-controlled firms China National Nuclear Corporation and China Guangdong Nuclear Power Holding Co., Ltd., have constructed and operated China's civil nuclear plants. But new power companies China Huaneng Group and Datang Corporation—also state owned—are beginning to compete in this market. Also, in May 2007, the State Nuclear Power Technology Corporation was established by the State Council to manage adoption of new nuclear reactor technologies, including purchasing overseas technology. China has a National Nuclear Safety Administration, and new plants must receive the approval of this administration as well as the Ministry of Environmental Protection.⁶⁶

China plans to increase its nuclear power capacity to 60 gigawatts by 2020, and this ambitious goal has several consequences. First, more than 16 provinces in China are lobbying Beijing aggressively to approve the construction of new nuclear plants. If most or all of these siting requests are approved, the locations of China's nuclear power plants will be greatly diversified, and competition may develop among provinces seeking to develop champion production sites. Such competition could have positive effects such as improving the efficiency of nuclear production and design; it also could have negative effects such as precipitating a decline in nuclear plant construction or reducing adherence to energy production safety standards. Andrew Kadak of the Massachusetts Institute of Technology testified before the Commission that China's nuclear safety compliance is strong compared to the safety compliance of other energy industries, principally because China's nuclear energy community understands the catastrophic effects of a nuclear accident.⁶⁷ However, he also stated that with China's nuclear expansion, "the regulatory oversight of construction and operation must be expanded at a pace to assure that the same level of quality of the first plants is maintained for all future plants."⁶⁸ He noted that Chinese engineers could benefit from training in the United States to improve safety in the country's nuclear plants.⁶⁹

Second, China is seeking access to new foreign technologies to increase its nuclear power and to improve the training and expertise of its nuclear engineers and scientists. China has approved purchases of reactors from Westinghouse and Areva as well as a deal with Russia to construct a uranium enrichment plant.⁷⁰ When it sold four AP1000 third-generation-technology reactors to China, Westinghouse agreed to transfer the technology for the construction

and design of the units.⁷¹ China's desire to gain access to this technology is directly linked to its desire to be self-reliant in reactor design and construction project management and to utilize international cooperation to leapfrog its nuclear technology and capabilities to a new generation.

Third, China has expanded its strategy to acquire foreign energy resources to include the acquisition of uranium equity mining stakes. China has uranium mining prospects in Kazakhstan, Angola, and Australia.⁷² With its purchase of two nuclear plants from Areva, China Guangdong Nuclear Power Group also purchased a 24.5 percent stake in UraMin, an Areva subsidiary with uranium mines in Africa.⁷³

China is coupling its civil nuclear power expansion with an expanded effort to export nuclear energy technology. The United States will be hard-pressed to criticize China for exporting the technology if such sales are conducted carefully and in compliance with accepted international norms (including international export control regime safeguards designed to prevent proliferation). After all, the United States is selling its civil nuclear technology to China. Nonetheless, when she testified before the Commission in May 2008, Deputy Assistant Secretary of State for International Security and Nonproliferation Patricia McNerney said that China's nuclear energy cooperation with other nations, particularly with Pakistan, should be carefully monitored, especially given China's past proliferation record.⁷⁴

Constraints on China's Energy Supply

In addition to natural constraints imposed on the country's available energy resources, China's energy supply faces structural constraints. For example, as the country's economic growth rate has soared, China's transportation infrastructure has not kept pace. This has resulted in serious transportation bottlenecks between production areas in the central and western parts of the country and urban coastal regions that are the primary energy-consuming areas. These bottlenecks prevent economical and efficient delivery of coal, oil, and refined petroleum products and increase their costs to consumers.

Consonant with the central government's energy policy, the government controls energy prices. China must manage disparities between a liberalized upstream energy market and a controlled downstream energy market.⁷⁵ For example, with electricity prices set by the state to protect consumers, and coal prices set by the market, electricity producers cannot increase electricity rates to keep pace with coal prices. This has resulted in electricity shortages, because power companies are either unable to purchase fuel or unwilling to operate at a loss.⁷⁶ To shield companies from this disparity and to keep them afloat, the government provides subsidies.⁷⁷ This encourages higher demand from consumers because retail prices are cheaper than they would be if they were set by the market, and it distorts the economy because it requires the government to pay the difference. The United States has complained that such subsidies are actionable violations of China's trade commitments.

Coal-based power companies receive some subsidies, but research conducted by Edward Cunningham, a Ph.D. candidate at the Massachusetts Institute of Technology, found that this covers the cost of only a small proportion of most plants' total fuel supply. The IEA reports that, as coal prices in China have been permitted to rise to the world price, some power companies and coal mining firms are seeking to protect themselves from the effects of electricity price controls by integrating their operations.⁷⁸

Prices for crude and retail oil products in China remain fixed well below world prices. This places a significant burden on China's state-owned oil companies that have refining activities. These companies purchase oil on the world market and then must sell their refined products to consumers—often at a loss to the company. The effects of this pricing policy are becoming more acute as global oil prices rise. Much as is the case with respect to electricity production, the government must provide significant subsidies to keep oil refiners in business, especially as the domestic market's consumption of imported oil products is increasing.⁷⁹

Energy subsidies for electricity production and oil refining firms impede China's efforts to reduce the growth of energy consumption because they reduce the consumption disincentive of higher prices. Increased consumption not only heightens China's energy supply challenges but also results in increased environmental pollution, especially given the level of China's dependence on coal.

The Environmental Impacts of China's Energy Consumption

China's energy consumption and reliance on fossil fuels have resulted in environmental pollution that affects public health, air and water quality, and—at the heart of the Communist Party leadership's concern—the economy. A 2007 World Bank report entitled *The Cost of Pollution in China: Economic Estimates of Physical Damage* estimates the total cost of air and water pollution is about 5.8 percent of China's gross domestic product (GDP) annually, or 781 billion RMB (\$112 billion).⁸⁰ Jonathan Schwartz, assistant professor at the State University of New York at New Paltz, noted that, as estimated by China's Ministry of Environmental Protection, the direct cost of pollution damage to China's economy, as a percentage of China's annual GDP (that was approximately \$2.2 trillion in 2005), is between 8 and 13 percent, or a cost approximating \$200 billion in 2005.⁸¹ In human costs, an estimated 750,000 people die in China of pollution-related illnesses every year.⁸²

A continued decline in China's environment likely will raise these costs and could hinder future growth. Given that the Communist Party has staked its legitimacy on maintaining rapid economic development, if the costs to prevent and mitigate pollution increase to the point where they impede economic growth—a distinct possibility—citizens might begin to question the party's governance. Pollution already is causing problems for the government, with the frequency and size of protests over local environmental conditions increasing.

Air pollution resulting from China's combustion of fossil fuels is comprised of several byproducts, including carbon dioxide, sulfur

dioxide, nitrous oxide, mercury, and particulate matter, and it affects both the local environment and the global environment. China, in fact, is home to 20 of the world's 30 most polluted cities, primarily as a result of China's coal consumption.⁸³ One-third of urban residents in China breathe heavily polluted air.⁸⁴ China's heavy reliance on coal also results in China being the world's leading emitter of sulfur dioxide, a major cause of acid rain that damages soil and water quality,⁸⁵ from which approximately one-third of the country suffers.⁸⁶ China has set targets to lower sulfur emissions, but in 2006 only four provinces met their targets and national emissions increased overall.⁸⁷ As reserves of clean (bituminous) coal grow smaller and China begins to use more lignite coal with a lower energy output and higher sulfur content, it is probable sulfur emissions will grow.⁸⁸

Coal burning in China produces approximately 25 percent of global mercury pollution,⁸⁹ which directly threatens human health, wildlife, and fish and can enter the water supply. As Daniel Jaffe, a professor of Atmospheric and Environmental Chemistry at the University of Washington-Bothell, explained in his testimony, mercury has a biocumulative effect, and over time the increase in mercury in contaminated water and fish can result in serious neurological impacts, especially in children.⁹⁰

These effects are felt by China's population, which daily confronts the soot, dust, and unseen byproducts of coal combustion. It also is important to recognize that air pollution has no boundaries: The effects of China's air pollution are global in their reach. During the Commission's August 2008 trip to Asia, Japanese officials expressed concern about the effect of China's air pollution on air quality in Japan. Some of China's pollution also reaches the United States. U.S. scientists on the West Coast have used a variety of tools to trace the flow of air pollution from Asia (including China) to the United States⁹¹ and have documented the transport of three pollutants: ozone, particulate matter, and mercury. Studies show that the effect on local air quality of pollutants from Asian sources on most days is relatively small, but on a few days per year, the Asian pollutants can constitute a large fraction of the regulatory standard⁹² and push local pollution beyond the acceptable levels of minimum air quality standards.

Scott Fulton, principal deputy assistant administrator for International Affairs at the U.S. Environmental Protection Agency (EPA), testified that EPA has not credited a share of U.S. pollution to sources from any individual country. However, EPA has commissioned a study to assess the significance of the international transport of air pollutants, the results of which will be released in 2009. In this study, Mr. Fulton noted, researchers will document the flow of pollution into and out of the United States and will also assess the impact of these flows on U.S. and international objectives for improving air quality and mitigating climate change.⁹³

Carbon dioxide has been linked to global climate change, and China's emissions—as well as those of all other countries—will have long-term effects on the world's climate. China surpassed the United States in 2007 as the world's largest contributor of carbon dioxide, with an approximate production of six billion tons of CO₂.⁹⁴ China ranks second in the world after the United States in

terms of historic total CO₂ emissions (cumulative emissions production), and its per capita emissions rank lower than those of the United States.⁹⁵ China emits 4.3 tons of CO₂ per \$1,000 of production, compared to the U.S.' emissions of 2.6 tons of CO₂ per \$1,000 of production.⁹⁶ China's comparatively poor energy efficiency is to blame for its greater emissions per unit of economic output.

China's CO₂ emissions have been increasing steadily since 2002.⁹⁷ The surprise for many forecasters was how fast they grew. While they were expected to increase between 2.5 and 5.0 percent each year between 2004 and 2010, in actuality it appears they will have increased by at least 11 percent a year over that period.⁹⁸

China's role as the "world's factory" has exacerbated the country's environmental problems and carbon emissions, as energy-intensive, high-polluting industries have been established or have relocated there from elsewhere. China's infrastructure boom and urbanization likewise have caused significant growth in energy-intensive, high-polluting industries such as steel, aluminum, and cement,⁹⁹ the production of which primarily has supplied the needs of the domestic market, according to a study by Trevor Houser and others, published by the Peterson Institute for International Economics.¹⁰⁰

With economic development continuing along its current trajectory, China is projected to produce more than 40 percent of new, energy-related carbon dioxide emissions globally between now and 2030.¹⁰¹ These projections signify that China's contribution to global climate change is increasing concomitantly with its rising economic power.

Conclusions

- China's total energy consumption is growing and is projected to surpass that of the United States in 2010. By 2030, China will consume 25 percent more energy than the United States. The effects of such consumption growth already are influencing world energy markets, the global availability of energy resources, and the price of these resources.
- Coal remains China's primary fuel source, and China's coal consumption is expected to increase. This will increase China's already troubling emission of pollutants, notably including carbon dioxide, and will exacerbate the challenge of reducing China's pollution.
- China's energy consumption results in environmental consequences that have real economic and human costs. The cost of pollution has been reported to equal 781 billion RMB (\$112 billion) per year, and pollution-related illnesses cause an estimated 750,000 deaths per year in China. Continued declines in environmental quality potentially could hinder the nation's economic growth and possibly lead to a challenge of the Communist Party's authority.
- The pollution produced by China's energy consumption increasingly is reaching and harming other portions of the world, including the United States. If current projections for China's emis-

sions are realized and production of these emissions is not substantially mitigated, major international tensions may appear.

- China's carbon dioxide emissions are the largest of any nation and are projected to grow significantly. Global efforts to address climate change must consider the impact of China's current and future emissions.

SECTION 2: TACKLING THE CONSEQUENCES OF CHINA'S ENERGY CONSUMPTION

“The Commission shall investigate and report exclusively on—
...

“ENERGY—The effect of the large and growing economy of the People's Republic of China on world energy supplies and the role the United States can play (including joint research and development efforts and technological assistance) in influencing the energy policy of the People's Republic of China. ...”

Introduction

As a result of energy consumption growth, a growing dependence on imported oil supplies, and increasing emissions of carbon dioxide and other air pollutants, the People's Republic of China (PRC) government is confronted with the critical task of establishing and executing energy and environment policies that will both secure the energy supplies China needs and mitigate the environmental consequences of its energy use. As it faces this challenge, China is developing a regulatory framework but needs better oversight and implementation of energy and environmental policy. The United States has recognized the importance of improving China's energy governance and is cooperating to this end with China to address China's institutional problems.

Addressing China's Institutional Capacity

Despite the importance to China of its energy supply, and the environmental effects on China and other nations from consumption of that energy, China's governmental apparatus regulating these policy areas, and the actions taken within them, is weak and largely ineffective. This can be attributed to a lack of institutional capacity for formulating sound policy, a discomfort with free market principles that if adopted and enforced would help China achieve some of its objectives more easily, a lack of will, and a consequent lack of resource commitment to establish new policies and enforce existing policies that seek to lower energy demand, increase energy efficiency, and promote environmentally sound practices. The problems within China's policy-making structure occur at both the central government and local government levels. Central government problems primarily are obstacles to establishing sound national policies as a result of competing interests within ministries and organizations of the central government. Local problems most often are challenges in implementing policy, some of them caused by dif-

ferent interests that motivate local government decision making. Problems of both types are evident in China's energy and environmental policy institutions.

The most obvious explanation for the weakness of China's energy and environmental institutions, their policies, and the implementation of those policies appears to be the government's lack of commitment. The Commission observed that when both the central and local governments determined to implement and enforce the policies and plans for the 2008 Olympic Games in Beijing, those objectives most often were achieved. For example, China's government decided that it would improve the quality of Beijing's air during the Olympics and that auto use must be limited and the activities of polluting industries must be suspended (or the industrial operations temporarily or permanently moved from the Beijing area). These were drastic, far-reaching measures with profound economic implications and inconvenience for Beijing residents, but the government efficiently and effectively implemented them, and Beijing's air quality during the games improved substantially.

Nonetheless, China's leaders have recognized the impact that institutional problems have on the government's ability to carry out policy, and therefore have taken, and are to be commended for taking, some preliminary steps toward addressing these problems. At this time, it is too early to know conclusively the extent to which the central and local governments in China will support these steps and augment them as needed. It also is too early to know the extent to which they will succeed in the long term in improving China's energy efficiency and reducing its pollution.

China's Energy Policy-making Structure

China's capacity for formulating and enforcing energy policy has been constrained severely by the fragmented distribution of responsibilities among more than 12 different government departments and bureaus.¹⁰² Beginning in 2003, the Energy Bureau of the National Development and Reform Commission (NDRC) was established to exercise primary responsibility for energy policy coordination. However, this control was diluted over time by the distribution of responsibilities across a wide spectrum of government bureaucracies and the involvement of the State Council National Energy Leading Group (created in 2005), the Ministry of Environmental Protection, the Ministry of Land and Resources, the Ministry of Water Resources, the State Administration of Coal Safety, and state-owned energy companies. This has produced overlapping jurisdictions and authorities and often conflicting interests. For example, the Ministry of Land and Resources governs resource extraction rights—thereby controlling coal mining—while the Ministry of Environmental Protection is charged with enforcing the environmental compliance of energy firms.

The State-owned Assets Supervision and Administration Commission, which controls all state-owned resources including energy assets, collects dividends from energy corporations and is responsible for appointing energy corporation executives, further dilutes regulatory control.¹⁰³ Offering one illustration of the conflicts that exist among this array of agencies and authorities that share energy and environment policy making, implementation, and regula-

tion, Edward Cunningham, a Ph.D. candidate at the Massachusetts Institute of Technology, testified to the Commission at its August 2008 public hearing that the State-owned Assets Supervision and Administration Commission and the National Development and Reform Commission have conflicting industrial policy priorities: The State-owned Assets Supervision and Administration Commission and the Ministry of Finance are seeking to consolidate energy firms and minimize their number, and the National Development and Reform Commission is seeking to encourage competition among energy firms, an objective that benefits from a large number of firms.¹⁰⁴

As the Chinese leadership has struggled with creating a cohesive energy strategy, all these actors have worked to keep control of their respective pieces of energy policy.¹⁰⁵ Conflicts in the central government have been exacerbated by the involvement of China's state-owned energy companies. As a facet of China's economic liberalization, the PRC government created a group of corporations with the mission of meeting the country's energy needs. Mr. Cunningham explained, "The energy corporation initially served as a vehicle to resolve increasingly blurred rights and claims between central and local government control over energy assets, and also to attract foreign technology and financing to develop domestic resources under tight credit market conditions."¹⁰⁶ When those corporations were formed, the NDRC's energy bureaucracy lost much of its expertise to the companies as well as its influence in regulating energy production.

However, the relationship between the companies and government agencies does have some healthy aspects. The companies recognize the impact they have, and the importance of that impact, in providing energy security and thereby ensuring economic growth, and the government recognizes the technical skill and proficiency of the energy companies, many of which operate on the international market. While the energy companies operate largely beyond the day-to-day control of the central government, the government's top leaders are able to—and do—weigh in on major decisions, particularly on foreign energy investments.¹⁰⁷ Additionally, energy subsidies from the central government prop up companies that purchase supplies on the market but face price controls on their products.¹⁰⁸

The PRC leadership has acknowledged the need for greater energy efficiency to slow demand growth. And the government recognizes that, in order to rein in demand, it must have a unified energy policy. To improve the government's ability to monitor and control China's growing energy consumption, the leadership has attempted to centralize energy policy making. In its most recent attempt, in March 2008 at the 11th National People's Congress, the State Council created two new energy policy-making organizations. The State Energy Commission replaces the National Energy Leading Group, which set policy priorities, and the National Energy Administration was created to manage the operations of the State Energy Commission.¹⁰⁹ The National Energy Administration (NEA) is a vice-ministerial organization under the authority of the NDRC. Currently, it has a staff complement of 112.¹¹⁰ Beginning in July 2008, it is responsible for planning the activities of and governing

the oil, gas, coal, and power industries. In addition, it will play a role in proposing changes to energy prices and approving overseas energy investment projects.¹¹¹ This institutional change maintains state control and involvement in the energy industry and does not appear to be designed to allow or encourage market solutions to solve China's energy demand and supply challenges.

There is little hope that the restructuring will result in significant shifts in China's energy policy, primarily because the National Energy Administration falls short of being a full-fledged ministry with a ministry's array of powers, and instead functions in large part under the control of the National Development and Reform Commission.¹¹² Despite its involvement in determining energy policies, the NEA cannot make adjustments to energy prices without NDRC or State Council approval. Under this new structure, the NEA can suggest energy price adjustments, but the NDRC maintains authority over final decisions on energy pricing, a task that has grown increasingly controversial given the current state of global commodity prices.

Because it is unable to respond to changes in energy demand and supply by adjusting energy prices accordingly, the National Energy Administration lacks the authority it needs to administer China's energy policy effectively.¹¹³ It is incapable of coordinating stakeholders in the government, and lacks autonomy, manpower, and tools. As Erica Downs of The Brookings Institution noted in her testimony, "The organizational changes [that resulted in the establishment of the National Energy Administration] are tantamount to rearranging deck chairs on the Titanic."¹¹⁴

Joanna Lewis, an assistant professor of science, technology, and international affairs at Georgetown University, testified that the difficulty in implementing central government energy policy results primarily from the lack of incentives at the local level to follow Beijing's directives.¹¹⁵ Provincial and local government leaders are concerned principally with boosting economic output, and decreasing energy use or funding investment in clean energy technology will diminish the local government's returns, at least in the short term. For this reason, provincial or local leaders often attempt to boost local economic growth by secretly financing new energy projects or underreporting energy production to central authorities.¹¹⁶ In addition, Beijing struggles to regulate the operations of smaller, private energy companies such as coal mines in the provinces. These mines are the worst violators of safety and environmental regulations, and they often are shielded from regulation or closure by corrupt local officials.¹¹⁷

China has considered further reforming its energy policy-making structure to resolve power struggles in the central government and to lend more weight to the implementation of central government policies at the local level. Some government officials are pushing for establishment of a full-fledged energy ministry. A draft energy law released in 2007 is intended to provide a framework for comprehensive institutional reform and consolidation of authority. However, because of resistance by government departments to the reforms already instituted, Chinese officials have stated that the earliest possible date for consideration of this new law will be 2009.¹¹⁸ It appears that for the near future, China's energy policy

institutions will remain incapacitated and incapable of crafting meaningful reforms to resolve the energy production and pricing problems affecting the country's energy security and environment.

China's Environmental Policy-making Structure

At the 11th National People's Congress in March 2008, the State Council altered the status and name of the State Environmental Protection Agency (SEPA), which had been a vice-ministerial-level agency. It was given full ministry status and renamed the Ministry of Environmental Protection. China's environmental policy governance is concentrated in this one ministry. The Ministry of Environmental Protection is a relatively small ministry, with perhaps 2,600 personnel, only about 300 of whom are located in the Beijing headquarters.¹¹⁹ This compares to the U.S. Environmental Protection Agency (EPA), which has 17,000 employees, nearly 9,000 of whom work in the Washington, DC, headquarters.¹²⁰

The change from the State Environmental Protection Agency to the Ministry of Environmental Protection occurred simultaneously with the creation of the National Energy Administration, but the difference between these two reforms is that SEPA was raised to ministerial status, reflecting symbolically the higher priority now being placed on environmental protection. It is still too early to tell what impact this change will have on environmental policy making, but early assessments are pessimistic—primarily because the government has not provided the resources SEPA requires to accomplish its objectives. Scott Fulton, principal deputy assistant administrator of the U.S. EPA for International Affairs, observed that the EPA's Chinese counterparts still appear to have a limited mandate and an imperfect division of labor within the department,¹²¹ thus hindering the formation of policy.

Additionally, Jonathan Schwartz, an assistant professor of science and international relations at the State University of New York at New Paltz, observed in his testimony that ministries in the central government have varying degrees of influence and power. The Ministry of Environmental Protection may take actions to limit industrial development or may impose costs on industrial pollution, which puts it at a disadvantage vis-à-vis other central government ministries and ministerial-level, state-owned enterprises that are pursuing the government's higher priority of maximizing revenue and profits. Existing incentives for promoting rapid economic growth cause other ministries to be less compliant in supporting the environmental regulation of industry. This is a fundamental dilemma in China's institutional structure and, so far, steps have not been taken to resolve it. Until this occurs, the new environmental ministry's ability fully to implement sound policy and regulate environmental pollution will be limited.¹²²

Compounding this problem is the fact that China lacks a highly trained corps of environmental experts. As a result, even those in high-ranking positions often lack environmental policy expertise. In addition, many of these officials see their positions in the environmental policy bureaucracy as temporary stops along the way to more important (and often more lucrative) positions in other fields; as a result, they are reluctant to jeopardize relationships with in-

fluent figures in business and industry and, therefore, they rarely hold industry to rigorous environmental standards.¹²³

The greatest impediment to more effective environmental regulation and protection is the weak implementation of central government policies at the local level, and this situation is unlikely to change as a result of elevating the State Environmental Protection Agency to a ministry. At each level of government, Environmental Protection Bureaus are charged with carrying out the directives of the Ministry of Environmental Protection. However, at the same time, these bureaus are beholden to their local governments, because they are dependent on local government funding as well as the fees and pollution fines they collect from local industries. Under the Environmental Protection Law, local Environmental Protection Bureaus can levy pollution taxes against firms for any air and water pollution they produce above legally acceptable levels. Local bureaus rely heavily for operational funding on the pollution fines they collect, as the funding available to the central government's Ministry of Environmental Protection to distribute to the local bureaus is very limited. However, this creates a "Catch 22" situation for local bureaus, as Dr. Schwartz noted: Aggressive enforcement of environmental policies could result in closure of polluting local factories and therefore reduce revenue available to those bureaus.¹²⁴

Given that the Ministry of Environmental Protection has no control over the budgets of local environmental bureaus and therefore can have little influence over staffing, programs, and funding decisions, the disjuncture between the central government and local governments remains quite large. As a recent *Economist Intelligence Unit* report argues,

*[The Ministry of Environmental Protection] has a larger budget and greater bureaucratic clout than [the State Environmental Protection Agency] did. Unlike [the agency], [the ministry's] status as a full ministry allows it to bargain with provincial authorities on an equal footing. But authority related to environmental protection remains highly fragmented, split both among various central-government ministries, and between [the ministry] and local environmental protection bureaux ... controlled by local governments. This dysfunctional power structure makes it hard to co-ordinate policies and often renders [the ministry's] work ineffective.*¹²⁵

Also thwarting central government efforts to achieve significant pollution reduction is the lack of concern about pollution by many local governments and the higher priority many of them place on economic development. During the visit of a Commission delegation to Hong Kong in April 2008, environmental experts told Commissioners that if factory owners in Guangzhou were pressured to clean up their operations, the factories would simply relocate to another city in Guangdong Province. Local governments often are unwilling to support enforcement of environmental standards because they perceive such activity as potentially hindering economic growth and reducing tax revenue, employment, and local stability.¹²⁶

The system of evaluation and promotion for local officials contributes to this lack of willingness. Since economic liberalization policies took effect, the performance of local officials has been judged on the basis of their ability to foster growth in the areas they oversee. Many officials perceive economic growth and environmental protection as a zero-sum game. Given that their political futures depend on their ability to generate growth, officials often have demonstrated their willingness to turn a blind eye to environmental transgressions by profitable local companies.¹²⁷ This may change in the near future, as the Organization Department of the Communist Party of China's (CCP) Central Committee¹²⁸ intends to use environmental protection as "an 'important index' in measuring local officials' performance" for potential positions within the party, according to an Open Source Center analysis.¹²⁹ Whether this actually results in improved environmental compliance will only become clear over time.

Although the effectiveness of the Ministry of Environmental Protection has been reduced by regulation enforcement problems, the commitment of this agency to environmental protection, both before and since its elevation to ministerial status, is not in doubt. In its previous form as the State Environmental Protection Agency, it was known as a policy innovator on environmental issues and aggressively pursued its environmental protection agenda, albeit often with very limited success. Ministry of Environmental Protection Vice Minister Pan Yue, an outspoken advocate of environmental causes and of greater transparency in environmental decision making, has been a voice for progress in the environmental bureaucracy. Dr. Schwartz testified that an increasing number of central government officials are participating in high-profile activities intended to confirm awareness of environmental problems and demonstrate a commitment to resolving them. Nonetheless, the central government has not placed its full weight behind environmental protection and pollution prevention and abatement. From his research, Dr. Schwartz has concluded that "China has the potential to utilize its state capacity to more effectively address its environmental challenges, but it does not choose to do so."¹³⁰

Principal Deputy Assistant EPA Administrator Fulton testified that China, if it intends to bring about a major change in commitment to and enforcement of environmental protection policies, needs to adopt a broader social commitment that places a premium on environmental protection.¹³¹ If it does this, a key instrument it can tap to assist its efforts is the environmental government-organized civil society organizations that have begun to emerge in China. Operating as quasi-governmental entities, these organizations aid in highlighting local pollution or enforcement problems but avoid involvement in policy matters.¹³² Government-organized environmental groups have increased in number, professionalism, and visibility due to help from international environmental organizations and generally favorable treatment by the Chinese media.¹³³ Nonetheless, until environmental problems become a higher political priority at all levels of government, the effectiveness of these public efforts is likely to be constrained.

The Terminology Used to Describe Nongovernmental Organizations (NGOs) in China

The United States and China both use the term “nongovernmental organizations” to describe organizations that work outside formal government programs to promote, *inter alia*, civil society development, environmental protection, and health and safety. However, nongovernmental organizations in China and in the United States are not the same. The Chinese government has a hearty suspicion of NGOs in the West, especially given the role that these groups played in fomenting the “color revolutions” in Georgia, Ukraine, and Kyrgyzstan.¹³⁴ To ensure that civil society groups in China cannot challenge the existing power structure, China has adopted a system that allows organizations to operate under close supervision of the government, and while they ostensibly function as nongovernmental organizations, these groups more accurately can be described as quasi-governmental organizations. They must be registered and officially sponsored by agencies in the PRC government. They cannot operate freely outside this sponsorship, and they generally follow government policy closely.¹³⁵ For this reason, the Commission has termed these groups “government-sponsored organizations,” believing that this term more accurately reflects their true nature. In China, there are more than 2,000 registered organizations that work on environmental issues.

To be sure, a number of unregistered civil society organizations operate in China, and these groups more closely reflect the western concept of nongovernmental organizations that truly operate independent of the government. According to Jennifer Turner, director of the China Environment Forum at the Woodrow Wilson International Center for Scholars, there are at least as many unregistered environmental groups as registered groups.¹³⁶ But because the unregistered groups operate outside government control, they risk raising the ire of the PRC government if they are too vocal or active.

Public participation has been a key factor in motivating democratic governments, including the United States, to take effective action to fight pollution. In many cases, publicly organized groups have challenged the government’s regulation of pollution and have brought cases against industrial waste producers. In China’s Communist system, the absence of broad public participation in government processes may prove a serious constraint to the central government’s stated desire to clean up pollution because it discourages public action and initiative, limits the ability of the people to hold their government accountable, and leaves all hope for action in the central Communist Party and its local affiliates.

U.S.-China Cooperation to Address Institutional Challenges

The success of cooperative activities often hinges on one partner’s ability approximately to match the efforts and capabilities of the other. For this reason, several U.S. government programs and pro-

grams operated by other actors are directed toward facilitating China's efforts to reduce and mitigate pollution and have focused on improving the responsiveness and effectiveness of China's energy and environmental institutions. One method of doing this is to improve the capability of the institutions' personnel by offering training, exchanges, and technical education. Mark Levine of the Lawrence Berkeley National Laboratory leads that laboratory's China Energy Group that has been involved for several years in providing training programs that transfer technical skills to Chinese environmental protection personnel for developing appliance standards and fuel economy standards for vehicles. In the 1990s, the laboratory initiated a program in China to provide training for the design, analysis, and implementation of appliance energy efficiency standards. Dr. Levine testified that this program was launched after China's government assured it would establish appliance standards following this training. Eighteen months after the training, the government indeed issued efficiency standards for refrigerators and, since that point, has issued efficiency standards for 21 other household appliances and products.¹³⁷

In developing fuel economy standards, Chinese researchers and officials worked with the Energy Foundation from 2002 to 2003 to assess world fuel economy standards. Dr. Levine explained, "The Chinese [participants] were made aware of the approaches that other countries used to establish the standards, the levels of the standards selected, their feasibility, the costs, the ways of implementation, the approach to developing test procedures for vehicles, the applicability of the standards to different types of vehicles, and a very wide array of other information."¹³⁸ Utilizing this research, the PRC government enacted its own standards in 2004, and the Energy Foundation assessed the implementation of the new standards and made recommendations for improvement.¹³⁹

Acting Assistant Secretary of Energy for Policy and International Affairs Katharine Fredriksen provided another example when she noted that the Department of Energy is working with the National Development and Reform Commission to demonstrate how to conduct energy use audits of energy-intensive enterprises in China. This training program was a result of the U.S.-China Energy Policy Dialogue meeting in September 2007 and is an example of how U.S.-China cooperation can promote knowledge transfer as well as demonstrate to state-owned industries how to improve their own energy management.¹⁴⁰ The goal for the program is to provide technical support to assist the Chinese government in meeting its goals to reduce emissions and energy intensity in the 1,000 largest energy-consuming companies, identified by the Chinese under the "Top-1,000 Energy-Consuming Enterprises Program." Under this program, Chinese auditors will travel to the United States to receive training in energy audits and how to train others to conduct such measurements, and U.S. auditing teams will travel to China to demonstrate how to conduct audits. Acting Assistant Secretary Fredriksen indicated that these types of training programs can assist the integration of policies across different departments of China's central government as well as in industries that may have interests in promoting more efficient and cleaner use of energy. Further, this interaction affords participants the opportunity to de-

velop international and domestic networks with experts and officials holding similar responsibilities. While the exchanges have been delayed and will not occur in 2008, Department of Energy officials expect them to occur early in 2009.¹⁴¹

U.S.-China cooperation also is seeking to address the problems between the central government and local governments discussed above, especially through the U.S. EPA's support of the Ministry of Environmental Protection's Regional Supervision Centers. These centers were created to link central government policy with local government implementation and are located in Beijing, Xian, Shenyang, Chengdu, Guangzhou, and Nanjing.¹⁴² While Principal Deputy Assistant EPA Administrator Fulton acknowledged that the mandates and resources of these centers are limited, the U.S. EPA is working with the centers to improve their environmental enforcement capability.¹⁴³ In addition, both the U.S. Environmental Protection Agency and China's Ministry of Environmental Protection added an annex to their Memorandum of Understanding in December 2007 containing an agreement to partner on helping both central and subnational governments to strengthen enforcement and compliance inspection programs between levels of government.¹⁴⁴ The Department of Energy also is beginning a program called "eco-partnerships" that enables and encourages city governments in the United States and China to collaborate on learning how to implement better municipal policies for energy use and how to promote the local development of alternative energy sources with private sector participation.¹⁴⁵

Witnesses told the Commission that taking this approach at a subnational or even factory level could yield positive results by addressing the enforcement gap and working to inculcate an understanding among local governments and industries that failure to resolve environmental problems eventually will result in a slowdown of economic growth because the environment no longer will be able to sustain it.¹⁴⁶

Opportunities for Further Cooperation

Witnesses at the Commission's August 2008 hearing highlighted other opportunities for cooperation to improve China's energy governance. China has attended meetings of the International Energy Agency (IEA) (as an observer since it is not a full member) and participated in IEA Emergency Response Exercises. Currently, eligibility for membership in the IEA requires a country to belong to the Organization for Economic Cooperation and Development (OECD) and that, in turn, requires a country to have a democratic government. However, Acting Assistant Secretary Fredriksen told the Commission that there have been preliminary discussions about the possibility of changing the requirements for IEA membership, especially given that some nations with emerging economies, including China, which is the world's second-largest consumer of oil, do not satisfy OECD membership requirements.¹⁴⁷ If China were to participate fully as a member of the IEA, its membership would provide opportunities for strengthening its participation in the world's oil market, international oil policy formulation, and strategic reserve management activities.

Witnesses at the August hearing emphasized how important it is for China to increase its willingness and improve its ability to collect and report energy statistics. In this vein, China has agreed to participate in the Joint Oil Data Initiative, an effort to alleviate oil supply uncertainty among oil producers and consumers by collecting and sharing data. In June 2008, China and other nations represented at the G-8+3 Energy Ministers' meeting committed to participate fully in this initiative.¹⁴⁸ Full participation requires full disclosure of China's oil demand, production, and reserves statistics, and it is the belief of the members of this initiative that access to such information will bring about greater security and transparency in the oil market.

China's environmental data collection has problems and shortcomings comparable to those in its collection of energy data. Dr. Joanna Lewis told the Commission that China's collection of carbon dioxide emissions data is severely lacking. She indicated that, based on her experience, collecting reliable carbon emissions statistics can be very difficult because the results often rely on industry-level data, and she offered the opinion that China needs assistance in designing data collection efforts and mechanisms, monitoring the collection systems, and using the data to model and project emissions patterns. She further noted that having a functional national emissions inventory system is a crucial step toward equipping the government to adopt and enforce emissions reduction policies.¹⁴⁹

Dr. Jonathan Schwartz highlighted in his testimony that China's government-sponsored environmental organizations can make significant contributions to increasing the government's accountability and transparency but that those groups need international recognition and support if they are to survive and fulfill the very important role they can play in China:

*Direct and indirect funding for activities and training of China's environment community is the most obvious option. Another important form of support is global public attention. Any environmental organization that tests the political limits on behavior faces the threat of government sanction. However, global public attention and support for such organizations raises their profile and constrains the Chinese state from taking action against these groups with impunity.*¹⁵⁰

Addressing the Environmental Impacts of China's Energy Consumption

China's Domestic Energy Use and Pollution

The PRC government has promulgated several policies and initiatives intended to improve energy efficiency, reduce energy consumption, and reduce pollution. Because environmental conditions are inextricably intertwined with energy consumption, the government's energy policies will significantly affect environmental pollution.

In its first energy White Paper released in December 2007, the Chinese government assigned a high priority to sustainable, balanced development that promotes economic growth but recognizes

that growth must occur in an environmentally conscious manner. A key feature of this policy is the promotion of resource conservation through improved energy efficiency and resource allocation. Beyond the White Paper, the government has enacted various policies and regulations intended to control the pace of energy consumption. For example, in 2005, the Chinese government in its 11th Five-Year Plan (2006–2010) announced several goals for reducing energy consumption. The plan's most ambitious target (and one that many energy experts say will be difficult, if not impossible, for China to meet) requires a 20 percent reduction in China's energy intensity (the amount of energy used to produce one unit of gross domestic product [GDP]) by 2010.¹⁵¹ China has reported decreases in energy intensity for the past two years, and in 2007 most of China's regions achieved energy intensity reductions of 4 percent.¹⁵² However, the 11th Five-Year Plan has passed its halfway point, and Principal Deputy Assistant EPA Administrator Fulton acknowledged that while it is unlikely China will meet its national goal, a more accurate assessment of China's progress requires current information on China's energy intensity that is not currently available.¹⁵³ Given that 60 percent of China's energy consumption is attributable to industrial production, one of the primary strategies to achieve this goal has been to improve industrial energy efficiency.¹⁵⁴ In 2007, coastal industries reported an average 7.26 percent reduction in energy intensity, with central and western industries reporting 6.84 percent and 6.71 percent, respectively.¹⁵⁵

To address industrial consumption, the government is focusing on consolidating the industries it has identified as the "Top-1,000 Energy-Consuming Enterprises"—that account for nearly a third of national energy consumption and half of all industrial energy use—and is investing in long-term, energy-saving technologies and production methods. This initiative primarily targets industries producing aluminum, steel, cement, petroleum and petrochemical products, and glass.¹⁵⁶ All the enterprises participating in the program have signed agreements with local governments to reach energy targets by 2010, and, while the program is in the middle of its operation, preliminary evaluations indicate that some reductions in energy intensity have occurred. A report issued in 2007 by the Lawrence Berkeley National Laboratory stated, "In fact, NDRC recently reported that the steel industry—which is the sector with the largest number of enterprises and highest total energy consumption in the Top-1,000 program—experienced a decrease in overall energy consumption of 8.8 percent from 2005 to 2006 and unit energy consumption for producing one ton of steel declined 7.1 percent."¹⁵⁷

The government also has increased the export tax on energy-intensive industries and reduced import tariffs on energy and resource products such as coal, aluminum, and petroleum. According to Dr. Joanna Lewis, this intended to promote the utilization of energy-intensive products produced elsewhere. In November 2006, the Ministry of Finance increased the export tax on copper, nickel, and aluminum by 15 percent; on steel primary products by 10 percent; and on petroleum, coke, and coal by 5 percent.¹⁵⁸ Additionally, a March 2008 policy—announced, interestingly, by the National Development and Reform Commission rather than by the more envi-

ronmentally friendly but less powerful Ministry of Environmental Protection—prohibits high-polluting firms from listing on the stock exchange.¹⁵⁹

China is very concerned with ensuring the security of its energy supply and is diversifying its energy sources by making heavy investments in renewable energy sources and overseas oil production.¹⁶⁰ The 11th Five-Year Plan has identified a goal of increasing the share of renewable energy to 10 percent by 2010.¹⁶¹ The National Renewable Energy Law extends that target, with the goal of obtaining 16 percent of primary energy from renewable resources by 2020, and government policies are supporting this investment.¹⁶² Some gains have been made. China's installed wind power capacity is projected to reach 10,000 megawatts by the end of 2008 and 20,000 megawatts by 2010.¹⁶³ Hydropower capacity is projected to more than double by the year 2020, although, as Dr. Joanna Lewis noted, the realism of this projection is questionable, since achieving it would require building a new dam equal to the size of the Three Gorges Dam every other year.¹⁶⁴ In addition to infrastructure limitations, water shortages in China may make this projection unattainable.

The government also is promoting energy technology development and is emphasizing clean coal technologies and advanced nuclear energy technology. The December 2007 White Paper highlights the importance of foreign investment in energy projects in China as a means to finance the development of these new technologies and to encourage their deployment.¹⁶⁵ As a result of this prioritization and China's consequent investments, Acting Assistant Secretary Fredriksen testified that China probably will leapfrog the United States in developing coal-to-liquids technology and viable production units. China has agreed to adopt indirect liquefaction techniques that will allow for greater capture of carbon.¹⁶⁶

China's current environmental protection priorities are laid out in the 11th Five-Year Plan for Environmental Protection and include reducing sulfur dioxide emissions by 10 percent by 2010 (sulfur dioxide emissions react in the atmosphere to cause acid rain).¹⁶⁷ In 2006, sulfur dioxide emissions increased, but this trend reversed in 2007 when SO₂ emissions fell 3.16 percent,¹⁶⁸ and in the first half of 2008, emissions dropped again—by 3.96 percent compared to the same period in the previous year.¹⁶⁹ While emissions are decreasing, China will have to make dramatic achievements in the next two years to meet its 2010 goal.

To mitigate the effects of emissions from China's growing vehicle ownership, China has instituted strict tailpipe emissions standards and fuel economy standards for passenger vehicles; in fact, these are stricter than the U.S.' standards. However, as Principal Deputy Assistant Administrator Fulton pointed out, this initiative is incomplete because meeting these strict emissions standards will require a dependable supply of low sulfur fuel that China does not yet have. Furthermore, institution of these standards alone will accomplish nothing; strict government enforcement will be required.

During the Commissioners' April 2008 visit to Taiyuan in Shanxi Province, city and provincial government representatives indicated that a long-term goal for the area is to modernize its steel and energy industry to reduce pollution and improve environmental con-

servation. Officials highlighted the planting of “green belts” in the province, areas in which the government has planted thousands of trees with the aim of reducing carbon dioxide.

Other environmental policies have included the “green credit” policy, a cooperative effort by the Ministry of Environmental Protection, the People’s Bank of China, and the China Banking Regulatory Commission to deny bank credit to firms that are serious polluters. This policy may prove difficult to implement at the local level because, as addressed previously in this section, most local officials prioritize economic growth over environmental policy enforcement, and because polluting companies may be denied the financing they need to invest in cleaner technologies.¹⁷⁰

An alternate program to encourage industry action was discussed during the Commissioners’ April 2008 visit in Hong Kong. Hong Kong’s Secretary of the Environment Edward Yau told Commissioners that Hong Kong has signed an agreement with Guangdong Province to cooperate on reducing air pollution by imposing binding caps on four major pollutants. The Hong Kong government has provided funding for Hong Kong companies to clean up their production operations in Guangdong, and five major banks in Hong Kong have agreed to provide up to 100 percent financing for “green” projects on the mainland. In addition, Hong Kong will serve as a mentor for Guangdong Province to assist it to address environmental issues and set priorities for action.

With regard to public participation, China enacted an Environmental Impact Assessment law that took effect in September 2003. Under this law, citizens now can request public release of legally required environmental impact assessments of proposed construction projects such as power plants or chemical factories and also can appeal to the central government the project plans based on the results of those assessments or if an assessment has not been properly conducted. However, many projects covered by the law proceed without submitting the assessment. Interference by local officials on behalf of profitable enterprises and the lack of judicial independence in China often result in failure to enforce environmental laws.¹⁷¹

The Global Environmental Impacts of China’s Energy Use

The Chinese government acknowledges the existence of dramatic climate changes and their negative impact on China.¹⁷² In 2007, it released a report, *National Climate Change Program*, recognizing the findings of the Third Assessment Report of the United Nations (UN)-sponsored Intergovernmental Panel on Climate Change that concluded that the warming of the earth’s temperature over the past 50 years was likely due to the increase of greenhouse gases, including CO₂, primarily produced from human activity. Within China, changes in the country’s average temperature, precipitation levels, and sea level have been documented. *National Climate Change Program* reports that the annual average air temperature in China has increased between 0.5° and 0.8° centigrade during the past 100 years, slightly more than the global average. Annual precipitation has changed according to region: northern and northwestern areas have seen a decrease in rain—in some areas a significant decrease—and southern and southwestern areas have seen

an increase. Extreme weather events such as floods and droughts have become more common in the past 50 years.¹⁷³ The country's glaciers also have retreated.¹⁷⁴ The United Nations (UN) Intergovernmental Panel on Climate Change reported that glaciers in the Himalayas are retreating faster than any other glaciers in the world, and China's director of the Institute of Tibetan Plateau Research Yao Tandong found that China's 46,298 glaciers have retreated 7 percent from 1960 to 2000.¹⁷⁵ Glacial runoff from the Himalayas supplies freshwater for rivers flowing through China and South and Southeast Asia. Scientists report that 1.3 billion people will be affected by the melting of these glaciers because of the floods that will result from faster melting and the diminution of freshwater supplies on which they rely.¹⁷⁶

Greenhouse Gas Emissions

To combat these changes, *National Climate Change Program* identifies policies and objectives for reducing the country's greenhouse gas emissions. China's strategy for controlling carbon dioxide emissions has focused on reducing the country's energy intensity. If achieved, China's ambitious goal of reducing its energy intensity by 20 percent between 2005 and 2010 will produce an annual reduction of over 1.5 billion tons of CO₂.¹⁷⁷ However, scientists are skeptical of China's ability to meet this target because to date it has not achieved its 11th Five-Year Plan goals for reducing energy intensity.¹⁷⁸

Reducing Coal Emissions

Shanxi Province has the greatest coal production and coal reserves of any area in China. During the Commission's 2008 visit to Taiyuan in that province, the Commission learned that the Taiyuan power bureau, a provincial company, has formed a joint venture with Rockwell Automation to produce equipment to control coal emissions. Additionally, Commissioners learned that power generation, steel, and concrete plants in the area do not always utilize pollution control equipment. Reducing coal emissions in China will require not only the availability of technology and equipment but also the willingness of businesses and companies to put such equipment to use.

Because of the extent to which coal combustion is responsible for China's current and projected carbon dioxide emissions, the only ways China will be able to significantly reduce its CO₂ emissions are (1) to reduce its dependency on coal and/or (2) to find a way to capture the emissions from its coal-fired power plants.

China also is pursuing development of carbon capture technology. In a joint project with Australia, China Huaneng Group, China's largest power company, will test a post-combustion capture (PCC) pilot plant in Beijing. With PCC technology, emissions from power stations are passed through an absorbent solution that contains a chemical to capture carbon dioxide.¹⁷⁹ Moreover, China has initiated a program, called GreenGen, based on the U.S. FutureGen Alliance program, that develops clean coal technology. GreenGen Co. operates as a subsidiary of China Huaneng Group. GreenGen is building a 250 megawatt coal-based power plant using Inte-

grated Gasification Combined Cycle technology. This technology turns coal into gas, cleans the impurities from the coal gas, and thus reduces emissions. Once this first phase is completed at the end of 2009, plant capacity will be expanded to 650 megawatts, and carbon capture and sequestration technology will be added.¹⁸⁰ The program's goal is to capture and sequester between 1 million and 1.5 million tons of carbon dioxide, or 80 percent of the plant's carbon emissions, and the expected completion date is 2020.¹⁸¹

One alternative to coal combustion for power generation is nuclear power. Nuclear power plants pose their own—and vexing—specialized pollution problems, but they are airborne emissions free. China's low-level radioactive waste is disposed in near-surface and above-ground facilities in several locations around the country, and scientists are in the process of studying five potential sites for deep geologic disposal of high-level waste.¹⁸² If China meets its 2030 goal of generating 20 percent of its electricity needs with nuclear power, it will reduce its projected carbon dioxide emissions by 1.2 billion metric tons per year.¹⁸³ At present, 21 new nuclear plants are under construction or have been approved by the State Council to begin construction, adding to China's existing 11 plants that supply 2.4 percent of current electricity consumption.¹⁸⁴

International Efforts to Reduce Greenhouse Gas Emissions

Some nations, including most European countries as well as Australia and Japan, have been engaged in diplomacy with China in an effort to persuade China to ramp up its contributions to reducing carbon emissions. China signed bilateral climate change agreements with Norway in March 2007 and France in November 2007 and in April 2008 agreed to hold annual ministerial talks with Australia on mitigating climate change.¹⁸⁵ Further, the PRC government has ratified the United Nations Framework Convention on Climate and the Kyoto Protocol. China has very limited obligations under the protocol because it is classified as a developing country; China is obligated to monitor and report on its emissions but not to meet specific emissions reduction targets.¹⁸⁶ Not surprisingly, China prefers this designation and approach.

The PRC government has been supportive of international efforts to plan beyond the Kyoto Protocol. It advocated broad participation in the UN Climate Change Conference in Bali in December 2007 and supports the two-year negotiation process launched at the Bali Conference to create a plan for fighting global emissions that is intended to replace the Kyoto Protocol in 2013. The next meeting for these negotiations will occur in Poland in December 2008, and the process is expected to conclude at the end of 2009 in Denmark.¹⁸⁷

China has emerged as the leading host country for the Clean Development Mechanism, a product of the Kyoto Protocol. It "allows for the industrialized countries with emissions targets under Kyoto to meet their commitments in part by financing projects that lower greenhouse gas emissions in developing countries."¹⁸⁸ China is expected to generate 1.2 billion tons of carbon dioxide credits by the end of 2012, which will account for more than half of all the certified emission reduction credits in the program.¹⁸⁹

China argues that developed countries are the primary cause of climate change and therefore places primary responsibility for re-

ducing emissions on those countries rather than on China and other developing countries, a concept identified as “common but differentiated responsibilities.”¹⁹⁰ The United States *is* the largest historical greenhouse gas emitter and far exceeds China in emissions per capita.¹⁹¹ However, in the past two years China has overtaken the United States in total production of greenhouse gas emissions. All projections indicate that, in the absence of major energy consumption changes in China, both China’s aggregate emissions and its share of global emissions will continue to increase dramatically for the foreseeable future. The consequent reality is that it will be impossible for the international community to resolve the climate change problem by sufficiently reducing emissions unless China contributes to the effort. The solution also is unachievable unless the United States—as currently the world’s second largest emitter and the largest historical emitter of greenhouse gases—makes a substantial contribution. Any efforts to address this problem will require global participation by developed and developing nations.

In looking toward what the dimensions of such a solution might be, witnesses suggested rethinking fundamentally how the world views this problem and how different countries’ mitigation obligations are defined. The global economy—and China’s position within it—has changed drastically since the 1992 UN Framework.¹⁹² Joseph Aldy, a fellow at Resources for the Future and co-director of the Harvard Project on International Climate Agreements, argued in his testimony to the Commission that in any future negotiations, the entire framework of the climate change agreement should be revisited with this key fact in mind. He testified that “... the emergence of some countries, including China, suggests the need to re-evaluate the division of effort under international climate policy and find ways to ‘graduate’ emerging economies to a status in which they will be expected to exert more effort to mitigate climate change.”¹⁹³ According to Dr. Joanna Lewis, one of the PRC government’s concerns is that if it adopts a more proactive approach such as being willing to accept binding commitments, it will step out of its designation as a developing country and will be asked by both developed and developing nations to assume greater responsibility.¹⁹⁴ Both witnesses observed that the block of developing countries has recognized the changes and growth in China, and quite possibly those countries may expect more action and commitment from China than was previously expected.¹⁹⁵

China believes that binding commitments may tie its hands and slow its economic growth. The central government regards increasing energy use and increasing carbon emissions as inevitable by-products of development. In many cases, there is a “pollute now, pay later” attitude.¹⁹⁶ As a 2007 NDRC report explains, “To reach the development level of the industrialized countries, it is inevitable that per capita energy consumption and CO₂ emissions will reach a fairly high level. In the development history of human beings, there is no precedent where a high per capita GDP is achieved with low per capita energy consumption.”¹⁹⁷ Consistent with the priority the PRC government attaches to continuing a high rate of economic growth, China so far has been unwilling to accept any binding commitments that may stifle its development.¹⁹⁸

Obtaining sufficient movement from China will be a daunting challenge, especially due to its overwhelming dependence on coal as its primary source for electricity. The PRC government recognizes that for the foreseeable future China will remain dependent on coal as its primary energy source.¹⁹⁹ Thus, with regard to any future climate change proposals, China most likely will seek either to resist emissions caps or to obtain commitments from industrialized nations to supply clean energy technology. Like the United States, China has opposed emissions caps. It has argued for a “no targets and no timetables” approach to encourage developing countries to reduce emissions, consistent with its position that primary responsibility for reducing emissions should lie with the developed world. Dr. Joanna Lewis testified that it would be more technically and political feasible for China to commit to emissions reductions linked to economic growth, but this is unlikely to result in an absolute decrease in emissions²⁰⁰ and instead may only slow the rate of growth. It will require historically unprecedented diplomatic and technical creativity to overcome these obstacles and secure a satisfactory agreement and then ensure adherence to it.

U.S.-China Cooperation to Address the Environmental Impacts of China’s Energy Consumption

In addition to cooperating with China to assist its efforts to design and implement institutional reforms and to build capacity in its implementation of policies, the U.S. government and other actors are engaged with China in multiple projects to address directly the environmental consequences of China’s energy use. This Report will highlight only a few of them. In June 2008, at the fourth meeting of the Strategic Economic Dialogue (SED), the United States and China signed a 10-year energy and environment cooperation framework centered on five initial goals:²⁰¹

- Clean, Efficient, and Secure Electricity Production and Transmission
- Clean Water
- Clean Air
- Clean and Efficient Transportation
- Conservation of Forest and Wetland Ecosystems

This framework involves departments and agencies across both countries’ governments. For the United States, the departments of Energy, the Treasury, State, and Commerce, and the Environmental Protection Agency are participating. Acting Assistant Secretary Fredriksen testified that the Department of Energy is responsible for the task forces working on electricity production and transportation. She stated in her testimony that the task forces for all the identified goals are working with their Chinese counterparts to develop action plans by December 2008, the proposed date of the next SED meeting.²⁰²

According to the U.S. Department of the Treasury, “The Cooperation Framework has been structured to foster extensive collaboration over a ten year period to address the challenges of environmental sustainability, climate change, and energy security.”²⁰³ While the framework does not address directly the U.S.’ and China’s differing positions on climate change, successful implementa-

tion of the framework's goals could reduce the growth of carbon dioxide emissions in China. In his testimony to the Commission, Lawrence Berkeley National Laboratory's Dr. Levine urged that the U.S. government take this cooperation one step further by conducting a bilateral dialogue specifically on the subject of finding a common position for reducing greenhouse gas emissions, noting that U.S.-China cooperation on the issue could influence the course of global negotiations.²⁰⁴

U.S.-China cooperation also addresses one of China's greatest energy and environmental challenges—its dependence on coal and the emissions that coal combustion produces. Under the U.S.-China Fossil Energy Protocol, the two nations are cooperating to construct the first commercial-scale coal liquefaction facility using U.S. technology. In the Commission's 2007 Annual Report to Congress, the FutureGen program and China's involvement were highlighted as an opportunity for the joint development of clean coal technology. In January 2008 this program was restructured, and under the current guidelines international actors wishing to participate must submit new proposals. Under the new FutureGen plans, the program will focus on carbon capture and storage techniques in multiple power plants to develop near-emissions-free production. Acting Assistant Secretary Fredriksen stated, "Taking advantage of research and development in [carbon capture and storage], integrated gasification combined cycle, and pulverized coal technology, this approach will permit the demonstration plants to capture and sequester twice the carbon dioxide as the original 2003 FutureGen plan."²⁰⁵

The U.S. EPA also is involved in projects to address China's environmental pollution, with projects on air quality management, emissions inventories, methane capture and use, and emissions control from heavily polluting industries such as cement.²⁰⁶ Principal Deputy Assistant EPA Administrator Fulton testified that EPA also is working with China to implement a sulfur dioxide emissions trading system.²⁰⁷ EPA is collaborating with China through multilateral frameworks such as the Asia Pacific Partnership on Clean Development and Climate that is designed to "accelerate development and deployment of clean energy technologies, and to help meet energy security, air quality, and climate change goals in ways that promote sustainable economic growth and poverty reduction."²⁰⁸

Opportunities for Further Cooperation

In testimony before the Commission, witnesses highlighted the importance of technology transfer to China as a necessary step for mitigating greenhouse gas emissions. China advocates the use of tax breaks or other financial incentives to encourage developed countries to accelerate the pace and broaden the scope of such technology transfers, and it has pursued this agenda in bilateral as well as multilateral negotiations. Dr. Levine testified that China's primary technical need is the development of low-carbon technologies. He advocated pursuing joint development of these technologies and establishing procedures for sharing the associated intellectual property.²⁰⁹ Dr. Aldy also highlighted in his testimony the importance of developing carbon capture and storage tech-

nology and finding ways to make use of that technology commercially viable in both the United States and China.²¹⁰

Witnesses noted that China remains skeptical about the U.S.' commitment to change its energy consumption patterns and combat climate change. They suggested that the U.S. government could illustrate its commitment through technology transfers related to climate change. Part of the debate in the United States about transferring technology to China focuses on whether China should pay for the technology and whether it should receive it without conditions. Dr. Aldy noted that energy and environmental technology transfers do not necessarily have to be made without conditions. For example, the transfer of technologies could require implementation and enforcement of stricter efficiency standards or of a carbon tax policy.²¹¹

Barriers to the Transfer of Environmental Goods

As a developing country, China has advocated the transfer of energy-saving technologies and alternative energy technologies from developed countries to developing countries. One barrier to expanding such transfers is the concern by western manufacturers about China's lax enforcement of intellectual property rights and the economic losses associated with stolen intellectual property. Many western firms are reluctant to bring high-value technologies into China out of fear that reverse engineering or outright theft of technology designs may occur. Until intellectual property is respected and protected in China, and until violations are vigorously and effectively prosecuted, the transfer of new technology to China will be delayed in many cases.

Additionally, in the past, the PRC government has criticized the United States for restricting high-tech exports to China based on national security concerns, but restrictions on transfer of environmental technologies have originated in China in the form of trade barriers. Import tariff and nontariff barriers serve as pronounced disincentives for the U.S. business community to sell environmental technologies, goods, and services to China.

The issue of tariffs on environmental goods has been debated bilaterally in the U.S.-China Strategic Economic Dialogue and multilaterally, including in the just-ended Doha Round of World Trade Organization (WTO) negotiations. U.S. Treasury Secretary Henry Paulson has urged China to lift its import barriers on environmental technologies, and in May 2007, both countries signed an agreement to work together to reduce or eliminate tariff and nontariff barriers to trade in environmental goods and services.²¹² Eliminating or at least reducing tariffs on imported environmental goods appears to offer a win-win proposition for the United States and China. However, the United States and China have been unable to agree on a list of technologies and services aimed at reducing greenhouse gas emissions for which tariffs could be reduced. A schedule for tariffs cannot be established until agreement can be reached on a list of what qualifies as an environmental good.

Barriers to the Transfer of Environmental Goods—Cont.

During the Doha negotiations in November 2007, the United States and the European Union proposed a list of 43 goods, including solar panels, boilers, and thermostats, but China and other developing countries advocated a project-based approach under which individual countries could identify goods as “environmental goods” when included in a national project with an environmental objective.²¹³ In addition to this disagreement, Brazil desires to include biofuels (considered to be an agricultural product) as an environmental good, although the other goods on the proposed tariff lists are all industrial goods. The United States and the European Union oppose this suggestion. It appears that China may find this deadlock convenient for delaying movement on this issue.

China is investing heavily in developing its own clean energy technologies and may decide that protecting these nascent operations is more important than opening its market to new technologies.²¹⁴

Conclusions

- China’s energy and environmental policy institutions are weak, and without significant support and strengthening by the PRC leadership, these institutions will be incapable of reversing the trends of China’s energy consumption and environmental pollution.
- The most obvious explanation for the weakness of China’s energy and environmental institutions is the government’s lack of commitment to devote the necessary resources to achieving substantial progress in these arenas. The government demonstrated in its preparations for the Beijing Olympic Games that it has the ability to use governmental mechanisms to develop and enforce environmental policies to achieve its objectives—specifically improving the quality of Beijing’s air.
- Given the transboundary environmental impact of China’s unbridled energy consumption, the United States has a keen interest in supporting China’s energy and environmental bureaucracy to improve its transparency, expertise, and capacity to promulgate and enforce regulations designed to reduce emissions and increase energy efficiency.
- Chinese leaders are aware of the need to moderate the growth of energy consumption and to improve energy efficiency but to date they have not made a commitment to reduce carbon dioxide emissions at the cost of economic development.
- China participates in multilateral negotiations to address climate change but has major difficulty supporting an agreement that requires it to reduce its net emissions. Chinese negotiating efforts attempt to shift the burden to reduce emissions to developed, industrialized nations and to escape being placed in this group.

- As the negotiations for a post-Kyoto climate change mitigation framework move forward, the United States and China have a joint interest in cooperating to influence the outcome of the negotiations and to resolve their bilateral differences in order to achieve a mutually acceptable solution and a shared understanding of each country's commitments under the agreement.
- Without a reduction in tariffs, and effective protection for intellectual property rights and technology, it will be very difficult for American companies to participate in transferring energy and environmental technologies to China.

RECOMMENDATIONS

- The Commission recommends that Congress encourage the administration to monitor the transboundary environmental impacts of China's energy consumption and to report on the effects of China's air pollution on air quality in the United States.
- The Commission recommends that Congress encourage the administration to seek from China more complete reporting of the economic and environmental effects of China's energy use and to enhance cooperation with China in collecting information about those effects, especially in collecting data on China's carbon dioxide emissions.
- The Commission recommends that Congress urge the administration to implement fully the goals of the 10-year energy and environmental cooperation framework that was signed with China during the fourth meeting of the Strategic Economic Dialogue in June 2008.
- The Commission recommends that Congress encourage the administration to seek greater opportunities for public-private cooperation in the development and deployment of clean coal technology and carbon capture and sequestration technology in the United States and in China.
- The Commission recommends that Congress urge the administration to establish a bilateral dialogue with China to discuss strategies to reduce carbon dioxide emissions, especially from coal-fired power plants, and to mitigate the effects of climate change.
- The Commission recommends that Congress encourage the administration to work with China toward a mutually acceptable multilateral solution for adoption in international climate change negotiations.
- The Commission recommends that Congress urge the administration to press China to reduce or eliminate in a timely fashion its tariffs on environmental goods and services so as to encourage the import of clean energy and pollution control technologies into China.

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CHAPTER 4

CHINA'S FOREIGN ACTIVITIES AND RELATIONSHIPS

SECTION 1: CHINA'S EXPANDING GLOBAL INFLUENCE AND ITS FOREIGN POLICY GOALS AND TOOLS

“The Commission shall investigate and report exclusively on—
...

“REGIONAL ECONOMIC AND SECURITY IMPACTS—The triangular economic and security relationship among the United States, [Taiwan], and the People's Republic of China (including the military modernization and force deployments of the People's Republic of China aimed at [Taiwan]), the national budget of the People's Republic of China, and the fiscal strength of the People's Republic of China in relation to internal instability in the People's Republic of China and the likelihood of the externalization of problems arising from such internal instability. ...”

Introduction

China, as other nations, uses economic, military, and political tools to advance its interests on the world stage. China's growing activism is an attempt to demonstrate that it has recaptured great power status. In 2008, more than ever before, with the Olympic Games taking place in Beijing, China has promoted its economic strength and potential for growth and has courted international partnerships to support its policies. At times, it also has exerted pressure to change others' behavior—with some frequency in directions not favored by the United States—or to quell criticism of the Chinese government's actions. However, then-Deputy Assistant Secretary of State for East Asian and Pacific Affairs Thomas Christensen testified to the Commission that China's behavior abroad is generally moving in a positive direction.¹

This section does not document China's activities around the world; the Commission has done that in its Annual Reports in previous years. The objective of this section is to examine the motivations behind China's foreign policy and to identify the tools the Chinese government uses to accomplish its foreign policy goals. With a better understanding of why, how, and when China seeks

to exercise its influence, this Report will analyze the impacts of China's growing global power and how this change may affect U.S. economic opportunities and security in the Asia Pacific region and around the globe.

China's Foreign Policy Principles and Strategies

In the late 1970s, Deng Xiaoping initiated a series of economic reforms intended to revitalize the Chinese economy that had stalled under Mao Zedong's leadership. Prior to these reforms, China's foreign policy and public diplomacy were guided primarily by the "Five Principles of Peaceful Coexistence." Developed during negotiations with India in the early 1950s and then promulgated at the Asian-African Bandung Conference in 1955,² the five principles are "mutual respect for sovereignty and territorial integrity, mutual non-aggression, non-interference in each other's internal affairs, equality and mutual benefit, and peaceful coexistence."³ These principles still apply to China's foreign policy and often are repeated in Chinese diplomatic statements.

China's foreign policy was revamped at the turn of the century, and the central stated objective became that of a "peaceful rise." This concept was articulated in a report by Zheng Bijian, believed to be a confidant of President Hu Jintao, after Zheng returned from a visit to the United States in 2002.⁴ In the phrase "peaceful rise," both words are key, and each denotes a vital aspect of China's foreign policy. Those aspects are sometimes contradictory; at the very least they are in creative tension.

The Peaceful Rise

Chinese policymakers have hoped that emphasizing the "peaceful" nature of China's foreign relations would dispel concerns about a growing "China threat." Bonnie Glaser and Evan Medeiros, China experts from the Center for Strategic and International Studies and RAND Corporation, respectively, describe this theory in a 2007 article in *The China Quarterly*, stating, "The essence of peaceful rise is strategic reassurance to China's neighbors and major powers that China's ascension will not threaten their economic or security interest."⁵ However, the international community focused on the "rise" as opposed to the "peaceful" aspect of that policy, especially given China's military modernization program and its heavy investment in expanding and strengthening its military capabilities. Analysts began to regard China's growing economic and military power as a potential challenge to the existing world order and to question how an aggressive, powerful, rising China would act to obtain its objectives. Upon seeing this reaction, China quickly altered its description of the policy to "peaceful development," hoping this new rhetoric would promote more benign notions of China's growing economic power. However, the world has not fully accepted the message that China intended to convey and has continuing concerns about China's "rise"; indeed, some claim that China has already "risen."⁶ This has led to increased discussion about the effects of China's advancement, notably that it will bring new challenges to the international community and that

China will seek to displace the world's leading powers, namely the United States.⁷

Chinese leaders struggle with how best to counter the image that China's growth threatens other nations. Chinese leaders attempted to manage this challenge in 2005, when President Hu Jintao announced a new slogan for China's foreign policy, the idea of "building a harmonious world together." This phrase builds upon Hu's policy of building a "harmonious society," first proposed in 2005. According to Hu's vision, a harmonious society is one that is developed economically but in a balanced way that maintains stability in the country and ensures continued leadership by the Chinese Communist Party (CCP). Building a harmonious world is intended to "achieve a new international political and economic order of peace, tranquility, justice, mutual respect and common prosperity. ... [I]t is the objective of China's peaceful development road; what it wants to achieve is harmonious coexistence between men, between nations, between states, and between man and nature."⁸

China's new foreign policy did not originate from external threats facing China; rather, it emerged as a result of the party's insecurity about domestic unrest and instability.⁹ Andrew Scobell, associate professor at the Bush School of Government at Texas A&M University, explained, "In the post-Cold War era, Beijing realized that internal stability is increasingly vulnerable to international events, and China's domestic affairs and foreign policies were greatly impacted by the actions of other countries, notably the United States."¹⁰ The impact that external factors, such as the "color revolutions" in the former Soviet republics and the resulting spread of democratic governance, have on China's internal stability can affect the control exerted by the CCP apparatus. Furthermore, China must balance growing geopolitical tensions that result from its changing influence and power with maintaining a positive reputation that promotes trade and domestic development.¹¹

Edward A. Friedman, professor of Political Science at the University of Wisconsin, testified that while the "harmonious world" policy seeks a nonconfrontational political system that promotes both global economic development and regional and global stability, it does so at the cost of political and civil rights. The Chinese government regards economic and social rights as above individual rights and freedoms, so that the basic economic and social needs of the public can be met without a political system that allows for criticism of the government's policies.¹² Above all, Dr. Friedman contends, the Chinese Communist Party desires to live in a world that is comfortable and supportive of the party's survival.¹³ The party will support the promotion of rights and freedoms that do not challenge its primacy in the Chinese political system; this practice usually shapes concepts of human rights and political freedoms to conform with the party's interpretation of how these can be used to further its own interests.

In China's attempt to promote a benign view of its growing international power, Chinese leaders, in their diplomacy and policy, have emphasized one of the "Five Principles of Peaceful Coexistence"—the principle of "noninterference in each others' internal affairs." This principle is invoked when questions arise about how China acts abroad and how the Chinese government operates at

home. In addition, China repeatedly invokes this principle to ward off criticism of its foreign policies by other countries, including the United States, or actions by other countries that are at odds with China's internal policies or preferences. For example, when discussing this Commission's 2007 Annual Report, Foreign Ministry Spokesman Liu Jianchao stated, "... [T]he Commission clings to its biased position, grossly interferes in China's internal affairs, and vilifies China."¹⁴ China also protested the awarding of the U.S. Congressional Gold Medal to the Dalai Lama in October 2007 as interference in China's internal affairs.¹⁵

The "noninterference policy" has resulted in a "live and let live" approach to China's foreign relations, in which China ignores other nations' or governments' domestic or international actions as long as those are not directly inimical to China's current interests (presumably in the hope that the other governments will return the favor). This approach allows China's government to maintain relations with some of its trading partners despite criticism for some of the policies of those partners. In addition, this approach allows China to resist being pulled into multilateral efforts either to criticize or sanction a nation's behavior that the international community deems objectionable, or to encourage the nation to alter that behavior. For example, China has faced criticism regarding its relationships with Sudan and Burma because of the continuing genocide in Darfur and the political and human rights crisis in Burma but continues to invest in and trade with those countries.¹⁶

It appears that China's foreign policy has begun to evolve so that it no longer is as strictly adherent to the "non-interference policy" as it was. Instead, the policy is invoked selectively. Andrew Small, program associate for The German Marshall Fund of the United States, testified before the Commission that "... Beijing's attitude toward 'non-interference in internal affairs' has shifted: aside from cooperation on traditional threats to international security, China is now willing, albeit in limited circumstances, to treat internal repression and atrocities as legitimate grounds for international intervention." He cited as an example that China has provided peacekeeping forces to the United Nations (UN)-African Union hybrid force in Darfur.¹⁷

This evolution is connected to China's desire to be viewed publicly as a contributing member to international peace and security and to enhance its international standing.¹⁸ then-Deputy Assistant Secretary of State Thomas Christensen testified to the Commission that China has adopted a "... more pragmatic recognition of the merits and obligations of working with the international community on areas of concern."¹⁹ For example, China often cites its involvement in persuading President Bashir of Sudan to accept UN peacekeeping troops in Darfur.²⁰ Mr. Small explained that this change occurred because China does not want to have its public image damaged by the support it lends to regimes that perpetrate human rights abuses or threaten international security. China wants to operate in a global environment free from scrutiny and suspicion, and it has recognized that it stands to gain from the stabilization of situations around the world, especially in conflicts near China's borders.²¹ The challenge is how to use this awareness to contend more effectively with international crises and motivate

China to help resolve them.²² The Commission notes that while China has taken some bilateral action to encourage Sudan to quell the genocide in Darfur, it has not divested its state-owned energy company investments in Sudan's oil production.

The United States has been urging China to move in this direction for many years. In 2005, then-Deputy Secretary of State Robert Zoellick employed a new phrase to describe the type of foreign policy the United States would like to see from China, terming it "responsible stakeholderhood." He noted that a responsible stakeholder has the power to act and chooses to act in a way that effects positive change in the international community and contributes to its peace and prosperity. Thus, as China struggles with its international reputation, it is facing the choice of acting as a responsible stakeholder or being among the actors in the international community who are criticized for their actions or inactions. Yuan Peng, director of the Institute for American Studies at the China Institute for Contemporary International Relations, writes, "China is facing the difficult questions of how to balance its interests between the third world and the 'power club,' and how to balance its stance between sticking to the principle of noninterference in internal affairs and being a 'responsible stakeholder.'" ²³

China's strategy for conducting its foreign relations is tailored to the specific circumstances of countries or regions with which it wishes to do business or otherwise interact. Joshua Kurlantzick, a visiting scholar at the Carnegie Endowment for International Peace, stated that China's strategy relies upon a high degree of pragmatism: "[China] deals with any state or political actor it thinks necessary to achieving its aims, which is a sharp contrast from the past, and it also emphasizes the idea of a win-win set of values that China is growing into a preeminent power where it supports a world in which countries can benefit from China's rise. . . ." ²⁴ By stressing the gains that other countries may obtain through their relations with China, it seeks to position itself as a benefactor of developing nations and partner of developed countries.

The Peaceful Rise

As noted in the preceding segment, China's leadership has recognized the importance of operating a foreign policy that does not frighten neighboring nations or the world's great economic and military powers, most notably the United States, and that works to enhance China's reputation as a good and respectable world citizen. The leadership consequently has adjusted China's foreign policy goals and methods. But growth and development, and the inexorable challenge of keeping its massive population fed, clothed, housed, and under control—vitally important to the leadership—remain major determinants of China's foreign policies as well as its domestic policies. To stay on track economically, China must secure a steadily growing stream of raw materials and must have customers for its products. Both depend on foreign relationships, and China is not content to remain a second- or third-tier nation that can be either ignored or pushed around by more powerful nations or alliances. Thus, it has invested great effort in establishing inter-

national relationships that will enhance its influence in the world community and its control over world events.

A key aspect of China's diplomatic strategy is creating opportunities to acquire access to natural resources. The government and Chinese companies have been "going out" to acquire resources abroad so that these resources can fuel the domestic growth industries and the overall economy. A turning point in this strategy came when China became a net oil importer in 1993, and Beijing realized that in the future it would be dependent upon foreign sources of oil and sometimes coal to meet its energy needs. Dr. Friedman noted that among the most important developments in China's foreign policy priorities is the rise of energy security to the top of its national agenda;²⁵ a key objective of the "going out" strategy is to ensure access to energy supplies.

The "Going Out" Strategy

China's "going out" strategy was first enunciated in former President Jiang Zemin's report at the 16th National Party Congress in 2002 and was defined by Jiang as a strategy to help China open up to the world economically and diplomatically. Jiang stated, "We should encourage and help relatively competitive enterprises with various forms of ownership to invest abroad in order to increase export of goods and labor services and bring about a number of strong multinational enterprises and brand names. We should take an active part in regional economic exchanges and cooperation."²⁶ In a conference sponsored by the Shanghai municipal government in 2004, multinational corporations were encouraged to pursue four different types of projects in fulfilling the "going out" strategy: energy and resource projects, overseas contracting projects, purchasing and merging with overseas research centers, and purchasing and merging with overseas sales distribution networks.²⁷ Furthermore, the Chinese government has highlighted the importance of Chinese citizens and those of ethnic Chinese heritage who live overseas providing guidance and advice on how to conduct business abroad, according to various local circumstances, and using their connections to promote Chinese enterprise activities abroad.²⁸

Another objective of China's foreign relations is to promote China as an alternative to the United States as a global leader and strong national partner or ally. China invests in efforts to strengthen its relations with countries or regional organizations whose relations with the United States are faltering or weak and seeks to be viewed by them as a leader among developing nations.²⁹ For example, China has stepped up its engagement with the Association of Southeast Asian Nations (ASEAN) in recent years, perceiving that U.S. diplomacy in the region has been distracted by antiterrorism efforts. Thus, by agreeing in October 2003 to conclude a China-ASEAN free trade agreement within 10 years,³⁰ China created an array of opportunities to promote actions in the region that reinforce its development goals, integrate regional markets, and provide legitimacy for its authoritarian rule by the CCP. Moreover, by

presenting itself as an acceptable alternative to the United States, China has created a network of countries, such as Burma, that often are unwilling to criticize China's actions to repress domestic political dissent or violate international commitments. In exchange, China often supports their positions in international debates.

At the same time, China must maintain positive relations with the United States and, therefore, the People's Republic of China (PRC) government generally avoids confrontation on the issues of greatest sensitivity to the United States.³¹ Instead, Mohan Malik, a professor at the Asia-Pacific Center for Security Studies, testified that China gradually and in subtle ways uses its diplomacy to drive a wedge between the United States and its friends and allies.³² While China attempts to distinguish itself from the United States in the eyes of other nations and peoples with whom it is trying to establish mutually supportive relationships, China also seeks further cooperation with the United States so it can benefit from U.S. economic and military strength, knowledge, and expertise and close the gap between the two countries' relative national power.³³

A final aspect of China's foreign relations strategy is that it attempts to combine the full power of its economic, military, and diplomatic tools to advance its foreign policy goals. Colonel Philippe Rogers, U.S. Marine Corps, writes,

*China is ... successful as a 'full on supplier' of 'package deals.' It not only seeks new markets and preferred trade, but offers a full range of aid to include military advisors and sales, infrastructure development, medical support and programs, debt relief, low or no interest loans, free trade agreements, education and technical assistance, industrial hardware and software, cultural exchanges, and preferred tourism. It offers these through a combination of private and public (state sponsored) ventures, with its state and provincial representatives armed to low bid contracts, even at a loss.*³⁴

Such coordinated efforts take advantage of trade opportunities with, and opportunities to obtain needed natural resources from, individual countries, while at the same time they provide China with an opportunity to establish an active presence and influential partnerships in multiple regions.

China's Foreign Policy Tools

The use of economic, military, and diplomatic tools in the conduct of China's foreign relations allows China to develop influence by layering its interactions with foreign governments, militaries, business communities, and civil society. This section examines how China uses its diplomatic tools.

Economic and Trade Tools

Economic diplomacy is a vital component of China's economic development that creates openings for growth of Chinese businesses and, more importantly, for distribution of the "China brand." Shen Guofang, former PRC assistant foreign minister, stated, "Economic diplomacy with Chinese characteristics is the principal tool for pro-

moting global economic growth and China's peaceful development and for opening up global strategic space."³⁵ Thus, China uses these activities to facilitate pursuit of its broader international political goals.³⁶

In general, China employs three main tools in its economic diplomacy: trade, investment, and development aid. With regard to trade, China focuses its commercial transactions on areas vital to China's domestic development, including food security, natural resources, and energy resources. Additionally, China uses trade agreements to open new markets for exports of machinery, electronics, textiles, and other low-value manufactured goods.³⁷

State-owned or -controlled enterprises undertake the most strategic trade activities, such as those related to the purchase of oil supplies or other natural resources. These firms can rely on lines of credit from the PRC government and also receive political support in their efforts to seek favorable terms of trade.³⁸

China has devoted considerable effort to developing new markets and deeper political relationships in Africa, Latin America, and Southeast Asia. In this pursuit, it has promoted trade opportunities and investment—both by use of bilateral engagements such as signing free trade agreements and by promoting multilateral engagements such as seeking membership in regional trade organizations. In January 2008, China launched negotiations with Costa Rica for a free trade agreement, and it concluded a free trade agreement with Peru in October 2008.³⁹ China has even created its own multilateral groups for trade promotion. For example, in 2000, China convened the Forum on China-Africa Cooperation. At the forum's 2006 meeting, China announced a goal to double its existing trade with African nations to \$100 billion by 2010 and to provide \$3 billion in preferential loans and \$2 billion in export credits.⁴⁰ According to China's Ministry of Commerce, in 2007 trade between sub-Saharan Africa and China totaled \$59 billion, growing annually at a rate of 30 percent.⁴¹

The 2008 United Nations (UN) Conference on Trade and Development's *World Investment Report* indicates that China's outward foreign direct investment flows reached \$22.5 billion in 2007. As of 2007, the *World Investment Report* says China has invested a cumulative total of \$95.7 billion abroad.⁴² The growth of Chinese foreign direct investment indicates the rising importance of this tool for China's economic diplomacy. China's investments appear to focus on three main objectives: 1) to develop markets and improve infrastructure, 2) to seek access to natural resources, and 3) to gain technical expertise. China plans to expand its foreign direct investment activities and is in the process of establishing eight overseas economic and trade cooperation zones in Nigeria, Mauritius, Zambia, Mongolia, Pakistan, Thailand, Kazakhstan, and Russia to provide more opportunities for Chinese investment abroad.⁴³ These zones are areas designated in the host countries as locations where Chinese firms can locate and concentrate their investments in joint ventures and in which they can establish research and development facilities or industrial production.⁴⁴ After a bidding process, the Chinese government will select firms and support their ventures abroad through investment and the provision of infrastructure necessary for industrial development within the zones.⁴⁵

China's infrastructure investments and natural resource extraction activities generally occur in the developing world.⁴⁶ Its infrastructure investments support the development of alternative energy, automobiles, banking, telecom, and electronics industries.⁴⁷ Infrastructure bottlenecks are a significant constraint to economic growth in developing countries, and China finances infrastructure projects for several reasons. Often the projects support the growth of Chinese investments in a particular country by reducing production and transportation costs. In some cases, China can utilize multilateral institutional financing for its own economic and trade goals. For example, China's involvement in the Asian Development Bank's Greater Mekong Subregion Economic Development Program facilitates the development of infrastructure that benefits China's southwestern provinces by opening up outlets for trade through mainland Southeast Asia.⁴⁸ In many cases, the terms of the infrastructure project contracts require the use of Chinese companies to construct the projects, and thus these companies benefit financially. In countries that do not require the use of local labor in their contracts, companies often bring in Chinese laborers to complete the projects.⁴⁹ In addition, most infrastructure projects are large and visible, thus providing free advertisement of China's service to the country involved.⁵⁰

Natural resources, such as oil, minerals, and timber, provide the inputs to maintain economic growth in China. As the demand for resources has grown, Beijing has opted for an approach that seeks to secure those resources at their source and has utilized its "going out" strategy to seek equity stakes in natural resource production. In the negotiations for these investments, China seeks to maximize profit.⁵¹ However, especially for investments viewed as strategic, such as energy, China is willing to accept a higher level of risk for a lower level of return because of the political importance it has placed on acquiring access to these commodities and the potential for windfall profits given rising commodity prices. China's energy investments in Sudan illustrate the level of risk that Chinese firms are willing to accept. Because of the priority placed on acquiring oil at its source, China National Petroleum Corporation (CNPC) continues to develop oil resources there, and the PRC government is willing to expend the political capital necessary to maintain the company's access to these resources.

Western countries may prohibit their oil companies from activities or ventures in nations ruled by rogue regimes, or companies decline to make such investments given the attendant risks, but China has not implemented comparable restrictions. It has been willing to make use of such situations and view them as opportunities to make inroads into energy resource development. In return, countries often rely upon China's investment for an economic lifeline, such as in the case of Iran.⁵² However, then-Deputy Assistant Secretary of State Christensen expressed the belief that the Chinese firms, and, more broadly, the PRC, will be hard pressed to obtain the rewards they seek, specifically the energy resource advantage that has animated China's involvement with a number of disreputable regimes in Africa, Latin America, the Middle East, and Southeast Asia. He testified that pursuing short-term, direct purchase agreements with "problematic regimes" will neither satisfy

China's energy demand nor guarantee long-term energy security; it also will hinder the development of efficient and transparent global resource markets.⁵³

Debt relief and development aid are important tools for China's economic diplomacy because they provide China with a means to foster goodwill among developing nations. For example, at the 2006 Forum on China-Africa Cooperation, China announced that it would waive repayments of 168 loans that were due at the end of 2005 from 33 countries.⁵⁴ In 2007, China forgave some of the reported \$8 billion to \$10 billion in debt it was owed by Iraq and announced a grant of 50 million RMB (approximately \$7 million at the current exchange rate) to Iraq for public health and education.⁵⁵ Of note, China also has interests in Iraqi oil production.⁵⁶ In August 2008, China and Iraq agreed to a \$3 billion oil services contract that provides for China National Petroleum Corporation to own 75 percent of a joint venture to pump oil from the Adhab oil field.⁵⁷

The use of development aid also enables China to counter successfully Taiwan's international influence. Those countries in receipt of China's aid packages are expected to support the one-China policy, to recognize the PRC and not Taiwan, and to refrain from criticizing China in the international arena. Through this and other means, China is attempting to persuade the 23 countries⁵⁸ that recognize Taiwan diplomatically to derecognize Taiwan and establish diplomatic relations with the PRC. In January 2008, Malawi became the most recent country to do so, reportedly after China offered \$6 billion to the Malawian government.⁵⁹ In Latin America in 2007, China agreed to purchase \$300 million of Costa Rican bonds using Chinese foreign exchange reserves and to provide an additional \$130 million in aid. Costa Rica's constitutional court released a Memorandum of Understanding in which Costa Rica agreed in exchange to close its embassy in Taiwan and expel Taiwan's diplomats.⁶⁰

China advertises its aid as having "no strings attached"—referring to the requirements for transparency, good governance, and respect for human rights that often accompany aid packages from Western nations or international organizations.⁶¹ For example, concessional loans from China's Export-Import (Ex-Im) Bank are not accompanied by conditions for political reforms or fiscal transparency⁶² (contrasted with loans from multilateral development organizations such as the World Bank and the International Monetary Fund (IMF), and from advanced, democratic nations including the United States, the European Union (EU), and Japan that usually require recipient governments to meet various standards). In a conference presentation, David Shinn, former U.S. ambassador to Burkino Faso and Ethiopia, used China's 2004 Ex-Im Bank loan to Angola as an illustration of China's frequent approach to lending:

The Chinese loan offer occurred when the International Monetary Fund was at a critical point in its negotiations with Angola for a new loan. Due to serious corruption associated with the oil industry, the IMF was determined to include transparency provisions to curb corruption and improve economic management. After China offered its loan without such measures, Angola ended negotiations with the

*IMF. The Angolan government explained that China's loan contained 'no humiliating conditions' and that it 'greatly surpasses the contractual framework imposed on the Angolan government by European and traditional markets.' An Angolan government statement added that China 'understands the difficulties faced by a country that has recently come out of more than three decades of war and that it trusts in Angola's development potential and its ability to recover.'*⁶³

The terms for this loan prompted concerns that China's lending policies would undermine governance in the country. At the end of 2007, nearly \$837 million of the first tranche of this loan had been used to finance 31 energy, water, health, education, communication, and public works contracts involving seven Chinese firms.⁶⁴ The second phase of this loan will support fisheries and telecommunications projects. China's Ex-Im Bank provided another \$2 billion loan to Angola in September 2007.

An institution located in Hong Kong, the China International Fund Ltd., extended a \$2.9 billion loan to Angola in 2005 that has been regarded with suspicion because the loan's terms and objectives are opaque, and the loan is managed by Angola's Reconstruction Office that reports solely to the president.⁶⁵ A study by Indira Campos and Alex Vines of Chatham House reported concern in Angola that the nation may not have the capacity to maintain these projects after they are completed. The study goes further to note that "The inflow of money and credit lines from China gives Angola's rulers the ability to resist pressure from Western financial institutions about transparency and accountability."⁶⁶

Military and Security Tools

China's military and security cooperation abroad has taken on new meaning with its global economic expansion. Under President Hu, the People's Liberation Army (PLA), in addition to improving force modernization and defending China's territory, has become the defender of China's economic development interests.⁶⁷ Major General Tian Bingren, political commissar of the Nanjing Army Command College, writes,

*Providing security protection during the period of important strategic opportunity is the new mission of the people's army and also a new development of the tasks and missions of the people's army. . . . Although China will not seek to increase its sphere of influence and be a regional [hegemon], the need to maintain stability in surrounding regions and world stability, to promote the prosperity and harmony of the international community, and to protect our legitimate rights and interests requires us to build a military force compatible with the position of our country and suitable for the interests of our development. We can talk about peace only when we have the capability to fight.*⁶⁸

Developing the capability to fight while taking on this new international role has spurred the PLA to adopt new practices and to engage outside its borders in new ways, including engaging in military diplomacy, arms sales, military exchanges, joint military exer-

cises, nuclear nonproliferation cooperation, UN peacekeeping operations, antiterrorism activities, and humanitarian relief.⁶⁹ PLA officers regularly make visits abroad and invite foreign officers to attend military schools in China.⁷⁰ Deputy Assistant Secretary of Defense for East Asian Affairs David Sedney testified that China has increased its Professional Military Education at the same time that U.S. funding for International Military Education and Training programs has declined for Asian students.⁷¹ The PLA also pursues confidence-building measures such as the new military hotline between the United States and China that is now operational.⁷² In 2007, China conducted eight joint military exercises and two joint training activities with forces from other nations.⁷³ In September 2008, China conducted the “Warrior 2008” exercise with 5,200 troops in Inner Mongolia, which included long-distance strategy planning and combat exercises with live ammunition. The PRC government invited 110 military delegates from 36 countries, including the United States.⁷⁴

PLA engagement abroad does not proceed without political guidance from Beijing. Cynthia Watson, a professor at the National War College, testified that “China will continue to employ its military as a vehicle for carrying out foreign policy plans. But that military is and almost certainly will remain under the close reins of the Chinese Communist Party and civilian leadership.”⁷⁵ In line with government strategies, the PLA often seeks strategic relationships in geographical areas where U.S. involvement has been lacking. For example, in Latin America, Dr. Watson noted that the PLA has broadened its involvement in the region primarily because regional leaders feel abandoned by the United States, as the U.S.’ attention has been focused elsewhere.⁷⁶

Chinese military assistance includes the development of technology. For example, China and Brazil have cooperated in the joint development of satellites, and China has signed a partnership agreement with Argentina to develop communication and surveillance satellites.⁷⁷ This engagement allows China to act as a benefactor to foreign militaries, which can bolster China’s reputation among other nations.⁷⁸ The PLA’s activities in other nations also provide opportunities for its leadership to observe at close range the military strategy and operations of those nations’ armed forces and to make consequent adjustments to its own.

China’s Conventional Arms Sales

Conventional arms sales are an important tool of China’s military diplomacy. China uses them to advance its strategic interests and also to provide revenue for the government.⁷⁹ In addition, China can send experts into the countries purchasing these arms to conduct training and provide technical expertise.⁸⁰ The Stockholm International Peace Research Institute Arms Transfers Database reports that in 2007 (the latest year for which data are available) China delivered weapons and military equipment to Bangladesh, Cambodia, Ghana, Iran, Namibia, Nepal, Nigeria, Pakistan, Sri Lanka, Sudan, Thailand, Turkey, Venezuela, and Zambia.⁸¹

China's Conventional Arms Sales—Continued

The United States remains concerned about the nature of China's arms sales, especially to trading partners that may be considered rogue regimes. For example, China continues to sell conventional weapons to Iran that Iran either deliberately provides to, or otherwise permits to reach, terrorists and anti-U.S. forces elsewhere in the Middle East. While sales of conventional weapons generally are not prohibited by international law or multilateral agreement, transfers to Iran of goods listed on the UN Register of Conventional Arms are prohibited by UN Security Council Resolution 1747 that sanctions Iran for its violations of International Atomic Energy Agency (IAEA) and UN resolutions requiring it to halt its nuclear activities—a resolution China voted to approve and is obligated to uphold and enforce regardless of end-use guarantees from Iran or the contrary desires of Chinese companies.⁸²

Principal Deputy Assistant Secretary of State for International Security and Nonproliferation Patricia McNerney testified,

*We are particularly concerned that Chinese firms have continued to supply Iran with a range of conventional military goods and services in contravention of the restrictions within ... UN Security Council Resolutions. Inevitably, some of this weaponry has found its way to insurgents and militants operating in Iraq, as well as Hizballah terrorists in the Levant.*⁸³

She described evidence that Iran has transferred Chinese-made weapons to Shia militants in Iraq, and that a Chinese-made QW-1 missile, believed to have been supplied by Iran, was recovered in Basra in April 2008.⁸⁴ These retransfers have placed American and Allied troops serving in Iraq in harm's way and could further complicate the task of establishing sufficient stability in Iraq to enable transfer of military and security responsibilities to the Iraqi government and significant withdrawals of U.S. forces.

Principal Deputy Assistant Secretary of State McNerney acknowledged that China is sensitive to this problem, fearing that retransfers of Chinese-made weapons could result in a public image and diplomatic crisis for the Chinese government. However, she stated, "China appears to accept at face value the end-use assurances and pledges against retransfers it receives from its customers, despite the fact that some of its customers have links to terrorists and have records as unreliable end-users, such as Iran."⁸⁵ She also noted that the response that is needed from China is a persistent, long-term campaign to prevent retransfers and not a limited effort primarily designed as a public relations device to disarm critics prior to the Olympic Games in August 2008.⁸⁶ Concrete action, as identified by Ms. McNerney, would include a refusal to transfer conventional arms to Iran and North Korea and implementation of internal compliance policies to prevent inadvertent transfers.⁸⁷

Among the component activities of military diplomacy, Lieutenant General Zhang Qinsheng, deputy chief of the General Staff Department of the PLA, views antiterrorism, humanitarian relief, and peacekeeping operations as areas of most likely mutual interest with other nations and therefore holding the greatest potential for bilateral and multilateral cooperation.⁸⁸ China contributes more personnel to UN peacekeeping operations than the United States, the United Kingdom, Russia, or France, although China's financial contributions to the UN budget are much less than those of each of the other four nations. As of September 2008, 2,164 Chinese police, troops, and military observers were participating in 11 UN peacekeeping missions.⁸⁹ China's largest contingent of peacekeeping officers currently is serving in Sudan (in two different missions); its second-largest force is in Liberia. The PRC military contributes UN military observers, engineer battalions, police units, medical teams, and transportation companies, often for repeated deployments.⁹⁰ In addition, China has its own academy for training officers selected for peacekeeping assignments.⁹¹

China's involvement in peacekeeping operations is a relatively recent development. However, this involvement has expanded rapidly. Dr. Friedman testified that one motivation is China's fear that the United States and its allies and friends may use such missions to foster the spread of democracy and other western political values and methods. While some other countries participate in peacekeeping operations to receive UN funding that supports their armed forces, China uses them to give its forces operational experience, and so China obtains added influence in the locations where the missions are conducted. Colonel Rogers testified that personnel deployed to these operations gain "corporate knowledge" of operating in unstable areas that may be underdeveloped.⁹² In addition, personnel receive exposure to the operational practices of other foreign militaries participating in the missions; real-life practice in conducting operational logistics, civil engineering, and civil-military interaction; and experience in deployments and redeployments, sometimes under combat conditions.⁹³ Furthermore, Colonel Rogers noted that the personnel returned from these assignments with valuable regional expertise and intelligence about how to operate and sustain forces abroad, particularly from missions in Africa.⁹⁴

Diplomatic and Political Tools

China's leaders use negotiation, persuasion, obstinacy, and compromise in bilateral and multilateral exchanges, among other diplomatic and political tools. However, these tools are sometimes difficult to identify clearly because China's government, or its state-owned or -controlled organizations often employ them in tandem with tools of economic or military diplomacy. For example, in the quest to limit Taiwan's international space and encourage countries to recognize China diplomatically, China routinely offers lucrative aid or trade incentives to countries that currently recognize the Republic of China (Taiwan) in an effort to switch or at least moderate their loyalty.

China has developed what Joshua Kurlantzick has termed a "charm offensive": its use of economic cooperation and security assistance in an effort to build its soft power influence. Mr.

Kurlantzick testified that China prefers an environment in which its influence is understated and in which it does not have to express its desires directly because its influence leads other countries to recognize and support its position.⁹⁵ An example of how this can work to China's benefit: Prior to the arrival of a Chinese official in Nepal in May 2008, the Nepalese government ordered a raid on a center for Tibetan refugees—very likely a gesture to China by the Nepalese government in recognition of China's displeasure with Nepal's position as a transit center for Tibetans fleeing to India.⁹⁶

China's leaders hope that its use of soft power will divert attention from the buildup of its hard power military capabilities and that lucrative trade and investment packages will shift the advantage from U.S. diplomacy. China fears that the United States is trying to contain the growth of its influence and control within the Asian region, and it sees its diplomatic relationships in Asia, especially its relationship with India, as important to preventing containment of its regional and global influence.⁹⁷ Therefore, as Dr. Malik testified, "China's 'charm offensive' is aimed at gathering as many friends and allies as possible in Asia and beyond to form a countervailing coalition under the rubric of strengthening economic interdependence and globalization—but without antagonizing Washington for fear of jeopardizing access to the U.S. market, capital, and technology."⁹⁸

Achieving this balance is the challenge. The "charm offensive" cannot be too assertive, raising alarms about China's rise and domination and a sense that China is or is becoming an unfair competitor as a result of its domestic economic policies.⁹⁹ Therefore, in every aspect of its diplomacy, the Chinese government must emphasize the "win-win" nature of its bilateral relationships and deemphasize the benefits to China.¹⁰⁰

Multilateral organizations provide a convenient mechanism for China to pursue some of its bilateral objectives and to manipulate the course of negotiations or discussions by developing and marshaling the force of multinational consensus on issues it considers to be significant. China uses its weight in these organizations primarily to counter the United States and promote the concept of multipolarity in global politics.¹⁰¹ Dr. Malik argues that this support for multilateralism could be a "smokescreen" for China's strategic expansion of influence.¹⁰²

When China's interests cannot be met in its multilateral initiatives, Beijing sometimes may cast off its charm offensive and more overtly display its increasing influence. For example, when it sees its interests threatened by western intervention, China's position as a permanent member of the UN Security Council allows it to prevent or stall the criticism and sanction of pariah states with which China has a strategic political relationship—for example, Burma and Sudan. The moderation of its "non-interference" policy implies that at times China will support international efforts when it sees its own interests at stake, but this support does not indicate a permanent change in China's diplomacy.

The Impact of China's Rising Influence

China's rising influence enhances the country's international standing and reinforces Chinese leaders' confidence in communicating the country's intentions and policies. In turn, the heightened standing and leadership confidence enable China to pursue more aggressively its interests and objectives while less frequently encountering strong resistance.

Some of China's global activities and its exercise of its various foreign policy tools have effects that produce benefits for itself, the Chinese people, and other areas of the world. For example, many observers believe China's promotion of trade and creation of new markets in the developing world have a net positive result for China and developing countries.¹⁰³ However, China's global influence, and the ways in which it has employed that influence, have real-world costs—some of which are detrimental to other nations, including the United States. (See chap. 1, sec. 1: "The U.S.-China Trade and Economic Relationship's Current Status and Significant Changes During 2008" for a discussion of China's role in the Doha Round of the World Trade Organization [WTO] negotiations.)

China's economic diplomacy successfully has drawn a line of distinction between developed, primarily western countries often categorized as "the North" and poorer, developing countries identified as "the South." While this distinction does not necessarily refer to geographical location, there is some correlation. Most developing countries are in Africa, Latin America, and Asia, the bulk of which lie in the Southern Hemisphere. China still champions itself as a leader of developing nations and has taken advantage of trade and investment opportunities found in the developing world. The attention Beijing has paid to countries in the "South" is not without problems, especially as China's economic power grows. In some cases, nascent industries in developing countries have suffered from the importation of China's cheaper products, and in the case of South Africa, the clothing and textile industries were forced to close factories and lay off workers after an "onslaught of Chinese imports."¹⁰⁴ The Chinese government has acknowledged the effects of cheap Chinese goods in Africa, with the Ministry of Commerce noting that China must "make more efforts to help African countries develop their textile industry in order to offset the effects of cheap Chinese imports."¹⁰⁵

As this example demonstrates, China's domestic economic policies promoting cheap exports present a diplomatic dilemma for the Chinese government with respect to its trade relations with developing countries. Yuan Peng writes, "... [T]he gap in development between China and the developing countries is widening all the time, and there is corresponding increased frequency of friction over development opportunities. Hence, handling well economic and diplomatic relations with the developing countries is more and more becoming a strategic issue that China must seriously deal with in the new stage of its economic development."¹⁰⁶

One of the most obvious and troublesome products of China's foreign policy actions results from China's natural resource investments in countries with autocratic regimes. The accumulation of resource rents by these governments allows them to flourish inde-

pendent of their legislatures and people, thereby fostering authoritarian tendencies, corruption, and a decline in democratic practices.¹⁰⁷

Furthermore, giving foreign aid without strings to irresponsible, autocratic regimes undermines democracy, transparency, accountability, and economic equity in the developing world. The United States and other nations are concerned that giving aid without conditions will enable countries to circumvent the requirements of multilateral aid donors that promote responsible government and impede corruption. As then-Deputy Assistant Secretary of State Christensen testified,

We are concerned that by giving aid without conditions and without coordination with the international community, China's programs could run counter to the efforts by these other actors to use targeted and sustainable aid to promote transparency and good governance. We believe that such conditional aid programs are the best way to guarantee long-term growth and stability in the developing world.

Mauro De Lorenzo, a scholar at the American Enterprise Institute, noted that large amounts of unaccountable aid could have long-term negative impacts on the growth and quality of African regional institutions.¹⁰⁸

In addition, some of China's trade and economic activities may result in detrimental environmental and social effects such as in the decline of forests in Southeast Asia due to Chinese logging contracts and forced relocation of more than 50,000 Sudanese people as a result of the Chinese-financed construction of the Merowe Dam on the Nile River.¹⁰⁹ China's reputation as a trade and aid partner may suffer as a result, and countries may be less willing to enter into agreements for Chinese investment projects if resulting widespread environmental or social problems challenge their stability. Chinese companies that are responsible for poor labor conditions and environmental abuses may face local resentment and even violence.

Some of China's military interactions raise concerns in the United States and elsewhere about its strategic intentions. For example, China is aiding Pakistan in the development of a deepwater naval base at the port of Gwadar on the Arabian Sea, a maritime area of strategic importance to the United States.¹¹⁰ In 2007, James Holmes, associate professor of strategy at the U.S. Naval War College, testified before the Commission about the utility of the port of Gwadar for China. He stated,

From a military standpoint, Gwadar already offers a useful installation for monitoring commercial and military traffic passing through the critical chokepoint at Hormuz. Over the longer term, should China develop a navy robust enough to project credible power into the Indian Ocean, then the port promises to allow Beijing—for the first time—to directly shape events in the Persian Gulf.¹¹¹

Regarding the August 2007 Sino-Russian military exercises conducted under the auspices of the Shanghai Cooperation Organization, Deputy Assistant Secretary of Defense Sedney testified,

“China invites limited numbers of countries to its joint exercises with Russia, but has not included the United States. This feeds our doubts and concerns.”¹¹² As the United States seeks to encourage and facilitate economic and political liberalization in Central Asia while at the same time achieving a military victory against terrorist forces in Afghanistan, China’s pursuit of alternative security arrangements may be counter to U.S. security objectives in the region.

In his testimony, Deputy Assistant Secretary of Defense Sedney noted the 2006 Latin American visit of the commander of the PLA’s 2nd Artillery, China’s strategic missile forces. The visit of a senior commander whose responsibilities include no apparent interests in Latin America was unexplained, and this raised concerns.¹¹³ Any introduction of missiles to Latin America or aid to nations in the region to produce or obtain their own would be profoundly destabilizing and unacceptable for the United States.

In some cases, such as Sudan, China’s arms transfers have had a destabilizing effect. Deputy Assistant Secretary Sedney stated that these transfers are impeding achievement of political stability in that country.¹¹⁴

China’s officials appear to be increasingly aware that arms sales to nations suffering from humanitarian and governance crises may have undesirable political repercussions. The refusal of South African dock workers in June 2008 to unload Chinese-made assault rifle ammunition, mortar rounds, and rocket-propelled grenades bound for Zimbabwe during a time of elections-related violence demonstrated growing concern about the effects of Chinese arms sales.¹¹⁵ Levi Tillemann, in an article published by the *China Brief*, writes, “The incident cast China’s indiscriminate ‘weapons for resources’ development policies in hard relief, and put the PRC at odds with the U.S., EU [European Union], and many of the African nations it had sought to publicly cultivate.”¹¹⁶

Then-Deputy Assistant Secretary Sedney concluded that China must now face the geopolitical consequences for transfers that once were regarded simply as commercial transactions.¹¹⁷ The Chinese government confronted this situation with its co-production with Pakistan of the FC-1 multirole fighter plane. Deputy Assistant Secretary Sedney explained that this partnership placed pressure on China’s relations with India, and the use of Russian engines in the plane also resulted in pressure on the Russian-Indian relationship. Another example is Venezuela’s pursuit of military items from China. China recognizes the sensitivity of selling arms to Latin America, given that it is located in the U.S.’ “backyard” and therefore will be hypersensitive to Americans. For this reason, Dr. Watson testified that China is cautious in its interactions with Venezuela, and she noted “It appears perfectly plausible that Beijing has actually been notifying Washington of its interactions with Caracas.”¹¹⁸

The Impact on the United States, and U.S. Efforts to Affect China’s Foreign Policy

Then-Deputy Assistant Secretary Christensen welcomed China’s growing international activism, saying, “... [The United States is] actively encouraging China to play a greater role in international

diplomacy and in the international economic architecture, albeit for purposes that buttress international development and stability and, therefore, coincide with the overall interests of both the United States and, we believe, China itself.”¹¹⁹ However, China’s growing influence has both positive and negative effects for the United States. Deputy Assistant Secretary Sedney explained, “... China’s increased global influence can at times complicate, and at other times facilitate, the U.S.’ ability to protect our security and promote our interests, as well as those of our allies and partners.”¹²⁰ Thus, in U.S. diplomacy toward China, Deputy Assistant Secretary Sedney testified, “What we seek is for China to translate its larger economic and military and diplomatic power into being a responsible stakeholder. ... [A]nd by that, we mean a China that behaves responsibly, that enhances stability, resilience, and growth of an international system from which no country has benefited more than China.”¹²¹

According to then-Deputy Assistant Secretary of State Christensen, because of its concerns about the effects of China’s provision of unconditional aid in Africa, the United States will begin a new bilateral dialogue with China to discuss development assistance.¹²² The objective is to coordinate better the use of aid and to promote best practices. As of the date this Report was completed, formal discussions had not taken place. In addition, the strength of the bilateral relationship raises China to a higher profile in the international community, and Deputy Assistant Secretary of Defense Sedney stated that this helps to shed light on China’s behavior abroad.¹²³

The challenge for the United States in coping with China’s “charm offensive” is making sure that U.S. influence, U.S. security, and U.S. relationships around the world do not suffer as a result. Deputy Assistant Secretary Sedney stated that the United States, above all, must maintain a position of strength when moving forward in cooperation with China.

However, strength does not come only from firepower. Witnesses emphasized to the Commission the importance of enriching the content of U.S. relationships abroad, especially with developing countries, in addition to maintaining military superiority. Key to accomplishing this objective is enhancing the U.S. government’s foreign policy bureaucracy—notably including the Foreign Service and aid and development programs. Mr. Kurlantzick identified the need for developing expertise on China among the diplomatic corps—not just among those officers assigned to the Beijing embassy. He noted that this education would provide the capability to assess the impact of China’s global influence on U.S. economic and security interests.¹²⁴ Mr. De Lorenzo concluded that successful implementation of the Millennium Challenge Corporation development programs will be essential to building new alliances and broadening support for U.S. policies.¹²⁵

Also important to balancing China’s growing influence is maintaining an active presence in Asia. Then-Deputy Assistant Secretary of State Christensen stated that a strong U.S. presence in Asia promotes an “accommodating, engaging, diplomatic strategy” and helps to persuade China to make the right choices in pursuing its goals of economic growth and domestic stability.¹²⁶

One of the most important issues facing the United States is the need to learn how and when to leverage China's influence, especially its relationships with rogue states. The United States also must set clear limits and communicate clear expectations for responsible behavior, especially with regard to China's international commitments.

Conclusions

- China's growing diplomatic activism is an attempt to demonstrate that China has attained great power status. China is relying upon its "charm offensive"¹²⁷ to win friends around the world, and it is using its influence to push back potential adversaries.
- China has been able to use its economic weight to create financial dependencies that can constrain or censure the actions of other countries that rely on China's trade. This has allowed China to expand its influence among developed nations, namely the United States and the European Union, and to be more assertive of its own economic interests, as was most recently observed in its behavior at the World Trade Organization's July 2008 Doha negotiating round.
- China's use of aid and investment may have detrimental consequences for the U.S.' and international financial institutions' desire to promote transparency, accountable governance, environmental protection, and human development in the developing world.
- China has continued to transfer weapons and military technology to nations that may use or retransfer them in ways that violate international norms and values and harm U.S. interests.
- China's engagement in United Nations (UN) peacekeeping operations is a positive contribution to global security. However, Beijing's continuing arms sales and military support to rogue regimes, namely Sudan, Burma, and Iran, threaten the stability of fragile regions and hinder U.S. and international efforts to address international crises, such as the genocide in Darfur.
- The U.S.' ability to promote its foreign policies around the world and to protect its interests may be challenged by rising Chinese influence.
- Holding China accountable for fulfilling its international commitments and encouraging it to adopt a constructive global role will strengthen the international system.

SECTION 2: CHINA'S RELATIONSHIPS AND ACTIVITIES IN EAST ASIA

“The Commission shall investigate and report exclusively on—

...

“REGIONAL ECONOMIC AND SECURITY IMPACTS—The triangular economic and security relationship among the United States, [Taiwan], and the People's Republic of China (including the military modernization and force deployments of the People's Republic of China aimed at [Taiwan]), the national budget of the People's Republic of China, and the fiscal strength of the People's Republic of China in relation to internal instability in the People's Republic of China and the likelihood of the externalization of problems arising from such internal instability. ...”

Introduction

Northeast Asia is tremendously important to U.S. security and to the U.S. economy. Strong and long-standing U.S. security relationships with Japan, South Korea, and Taiwan are a source of stability in a region that is struggling to deal with the unpredictable North Korean regime and its destabilizing nuclear and missile developments and that is adjusting to the burgeoning military and economic strength and increasing external activity of totalitarian China.

The United States has banded together with Japan and South Korea, as well as China and Russia, in the Six-Party Talks in an effort to deal with the challenges posed by North Korea and, in particular, to persuade North Korea to jettison its nuclear weapons and weapons production capability.

The U.S. economy is solidly and inextricably tied to the region, where China is by far the largest trading partner with the United States, but the United States maintains extensive trade and economic ties with Japan, South Korea, and Taiwan.

The manifest interest of the United States in the development and well-being of democracy and a free market economy in Japan, South Korea, Taiwan, and Hong Kong constitutes another major area of U.S. involvement in the region.

In its Congressional mandate, the Commission is directed to examine and report on the economic and security structures and activities involving the United States, Taiwan, and the People's Republic of China, and the impacts of those on U.S. national security. In April 2008, a Commission delegation traveled to China and

Hong Kong, and in August 2008 a delegation traveled to South Korea, Japan, and Taiwan to meet with government officials, military leaders, academicians, business leaders, U.S. diplomats, and others to obtain and to discuss with them their perspectives on China and China's developing role in the region and globally; their views of how China's role is affecting and will affect the United States; and their opinions of how common interests can best be pursued.

It is important to recognize that the region is substantially integrated through trade and other economic relationships that are becoming more complex and extensive every day. Consequently, the nations in the region—and the United States as a global actor with deep and wide involvement there—have a strong interest in maintaining regional stability and peace along with free trade in order to provide sound conditions for continued development and advancement. The United States has a keen interest in its trading relationships in the region as China, Japan, South Korea, and Taiwan are four of the top 10 destinations for U.S. exports.

In the 2006 *Quadrennial Defense Review Report*, the U.S. Department of Defense noted that the actions of China and other emerging countries will affect the international security environment throughout the 21st century. The report stated that, given the strategic importance of Asia, U.S. forces need to have an understanding of Asia that is as comprehensive as our understanding of the Soviet Union during the Cold War.¹²⁸

With respect specifically to Northeast Asia, the security partnerships the United States has with Japan and South Korea are key. Under the 1960 Treaty of Mutual Cooperation and Security with Japan and the 1953 Mutual Defense Treaty with South Korea, the United States explicitly set forth its permanent interest in maintaining peace and security in that region. In line with these commitments, 42,000 U.S. troops are deployed to Japan, and another 14,000 naval personnel who are at sea are based there.¹²⁹ In South Korea, 28,000 U.S. troops aid in guarding the border with North Korea.¹³⁰ Under the Taiwan Relations Act, the United States has committed to “maintain the capacity of the United States to resist any resort to force or other forms of coercion that would jeopardize the security, or the social or economic system, of the people on Taiwan.”¹³¹

Another significant issue for the United States is the promotion of democratic governance in the region. Taiwan, Japan, and South Korea all have democratic governments. Hong Kong, a part of China, has been hindered by Beijing in moving toward universal suffrage under the “one country, two systems” model despite China's agreement to permit this movement as formalized in the documents providing for Hong Kong's return from the United Kingdom's control to Chinese sovereignty. The United States has a strong interest in encouraging and facilitating the steady and strong growth of these democratic systems.

Based on the Commission's 2008 visits to the region and additional research, this section addresses key issues pertaining to China that involve Taiwan, Japan, South Korea, and Hong Kong; how developments with those issues may affect U.S. interests; and what the United States should consider doing in the Northeast Asia region to protect its interests.

PART 1: TAIWAN

The Significance of Taiwan to the United States

After two decades of political reform, Taiwan has emerged as one of the most open societies in Asia, with a free press, regular democratic elections, and highly contentious public debates over the island's future course. Such shared democratic values give Taiwan a natural affinity with the United States. Taiwan also remains an important economic partner of the United States, ranking as the eleventh-largest U.S. trading partner for the first seven months of 2008.¹³² During this same period, Taiwan exported goods worth \$21.29 billion to the United States. It imported goods from the United States worth \$16.79 billion during this period,¹³³ which equates to approximately \$730 of U.S. goods per capita, as compared to approximately \$33 per capita for mainland China.¹³⁴ The presence in the United States of large Taiwan-American communities, and the large number of U.S. citizens with ancestry in Taiwan, also contribute to extensive familial and cultural linkages between the United States and Taiwan. During the course of a visit to Taiwan by members of the Commission in August 2008, Taiwan's President Ma Ying-jeou and his senior officials repeatedly and forcefully expressed their desire to improve relations with the United States following the relatively strained U.S.-Taiwan ties seen in recent years under former President Chen Shui-bian.

Although the United States withdrew diplomatic recognition from the government of Taiwan when it recognized the People's Republic of China (PRC) in January 1979, the United States has formally expressed an interest in both the security of Taiwan and in a peaceful resolution of Taiwan's status. The Taiwan Relations Act (TRA), which took effect on the same date that U.S. diplomatic recognition was shifted to the PRC, expresses the interest of the United States in promoting commercial and cultural relations with Taiwan. The TRA states that "It is the policy of the United States . . . to maintain the capacity of the United States to resist any resort to force or other forms of coercion that would jeopardize the security, or the social or economic system, of the people on Taiwan." The TRA also commits the United States to "provide Taiwan with arms of a defensive character" and declares that "any effort to determine the future of Taiwan by other than peaceful means" shall be a matter of "grave concern" to the United States.¹³⁵

In October 2007, the U.S. House of Representatives passed a resolution intended to officially reiterate Congressional commitment to the provisions of the original TRA. The resolution states that "it shall continue to be the policy of the United States, consistent with the [TRA], to make available to Taiwan such defensive articles and services as may be necessary for Taiwan to maintain a sufficient

self-defense capability” and that “the United States should determine the nature and quantity of such defense articles and services ‘based solely’ upon the legitimate defense needs of Taiwan.”¹³⁶

The Commission believes that the United States has an important interest in ensuring the survival of a democratic government in Taiwan, which it has encouraged over the course of several decades.

Taiwan’s Unresolved International Status

Taiwan’s international status remains unresolved. Although the Taiwan authorities continue to operate under the formal name of the Republic of China (ROC), they have abandoned claims to govern the Chinese mainland. During the visit to Taiwan in August 2008 by a Commission delegation, Su Chi, the current secretary general of Taiwan’s National Security Council, described Taiwan’s circumstance as unique, with no clear precedent in international law or diplomatic practice.¹³⁷

The People’s Republic of China asserts claims to be the rightful government of all of China, including Taiwan and its off-lying islands. The government of the PRC also has declared its intent to unify Taiwan with the mainland under the authority of the PRC. In 2005, the PRC codified its policy toward unification with Taiwan in a law that states, “Both the mainland and Taiwan belong to one China. China’s sovereignty and territorial integrity brook no division.” The PRC law also explicitly threatens the use of military force if Taiwan seeks de jure independence from the mainland:

*Taiwan is part of China. The state shall never allow the ‘Taiwan independence’ secessionist forces to make Taiwan secede from China under any name or by any means. ... In the event that the ‘Taiwan independence’ secessionist forces should act under any name or by any means to cause the fact of Taiwan’s secession from China, or that major incidents entailing Taiwan’s secession from China should occur, or that possibilities for a peaceful re-unification should be completely exhausted, the state shall employ non-peaceful means and other necessary measures to protect China’s sovereignty and territorial integrity.*¹³⁸

The history of U.S. diplomatic positions regarding Taiwan and its relationship with mainland China has been a complex one. The U.S. government has carefully avoided making explicit commitments to the governing authorities on either side of the Taiwan Strait. Maintaining a carefully noncommittal position has provided flexibility to U.S. officials in dealing with the three-way relationship between the United States, the PRC, and Taiwan. The status quo vis-à-vis the United States, the PRC, and Taiwan that has existed since 1979 has allowed Taiwan to continue operating as a de facto sovereign polity, albeit one that does not enjoy de jure U.S. recognition as an independent, sovereign state.

Continuing an established tradition of U.S. administrations of both parties, the George W. Bush Administration has emphasized that it opposes efforts by either the PRC or Taiwan to change this existing status quo unilaterally, whether in the form of coercive

PRC pressure directed against Taiwan or in moves by Taiwan toward de jure independence.¹³⁹ As stated on the State Department's country information Web page for China:

*The United States does not support Taiwan independence and opposes unilateral steps, by either side, to change the status quo. At the same time, the United States has made it clear that cross-strait differences should be resolved peacefully and in a manner acceptable to people on both sides of the Strait.*¹⁴⁰

The U.S. government's positions spelled out in various documents have been further bolstered by more specific statements from senior U.S. officials that have criticized steps by either the mainland or Taiwan viewed by the U.S. government as provocative. Examples of such statements include April 2005 criticisms of China's "Anti-Secession Law" presented to Congress by then-Deputy Assistant Secretary of State for East Asian and Pacific Affairs Randall Schriver,¹⁴¹ and the September 2007 statement made by then-Deputy Assistant Secretary of State for East Asian and Pacific Affairs Thomas Christensen that criticized Taiwan's plans to hold a public referendum on seeking United Nations (UN) membership under the name "Taiwan."¹⁴²

Taiwan's Desire for "International Space"

Although the ROC retained extensive international recognition as the legitimate government of all of China for many years following its relocation to Taiwan in 1949, in recent years a steady stream of nations has switched diplomatic recognition to the PRC. Maintaining diplomatic relations with as many states as possible has been a matter of principle for Taiwan's government and one in which that government has made a substantial investment of financial resources and diplomatic effort. Currently, 23 states maintain official diplomatic relations with Taiwan as the Republic of China, most of them smaller nations in Africa, Latin America, and the South Pacific. In recent years, the government of the PRC has offered aid packages and other inducements to encourage nations recognizing the ROC to switch recognition to the PRC, producing in some cases a "bidding war" for diplomatic recognition. In one of the most prominent recent cases, in June 2007 Costa Rica switched diplomatic recognition from the ROC to the PRC, reportedly in exchange for a package of incentives including \$130 million in aid and the purchase of \$300 million in government bonds.¹⁴³ (A more detailed discussion of China's inducements to Costa Rica in exchange for the transfer of diplomatic recognition is provided in chap. 1, sec. 2, of this Report, "China's Capital Investment Vehicles and Implications for the U.S. Economy and National Security.")

Alongside its efforts to lure away the diplomatic partners of the ROC, the PRC also has taken a hard line with respect to blocking Taiwan from membership or participation in international organizations. This includes institutions oriented entirely toward international public health and safety issues, such as the World Health Organization (WHO) and its administrative forum, the World Health Assembly (WHA). Perhaps the clearest example of the negative impact that can result from this sort of isolation came during

the Severe Acute Respiratory Syndrome (SARS) epidemic of 2002–2003, when Taiwan’s exclusion from the WHO prevented Taiwan’s health officials from effectively coordinating their efforts and sharing information with representatives of that body.¹⁴⁴

The United States has expressed strong support for Taiwan’s membership in international organizations in which statehood is not a prerequisite, such as the World Trade Organization and the Asia-Pacific Economic Cooperation (APEC) Forum, and, when membership is not possible, for meaningful participation in activities of international organizations such as UN specialized agencies, specifically including observer status in the WHO/WHA.¹⁴⁵ The European Union also has voiced support for Taiwan’s participation in “specialized multilateral fora.”¹⁴⁶

In a meeting with Commissioners visiting Taiwan in August 2008, President Ma emphasized the importance he attaches to efforts to gain membership or participation in such multilateral organizations and activities, which he referenced as seeking increased “international space” for Taiwan. He expressed a willingness to be flexible regarding the names under which Taiwan would participate in such organizations—as exemplified by the participation of Taiwan athletes in the Beijing Olympics under the name “Chinese Taipei”—in order to avoid diplomatic clashes with the PRC.

President Ma also identified the improvement of relations with the mainland as a priority of his administration and expressed hope that warming ties with Beijing could bring about a “diplomatic truce” in which the two sides would step back from aggressive attempts to peel away diplomatic partners from the other. President Ma and officials of his administration characterized their efforts to take a more conciliatory approach to Beijing as yielding mixed results. There have been positive steps, such as the resumption of talks between Beijing and the newly elected Taiwan leadership, and China’s lifting of restrictions on nonstop commercial flights from China to Taiwan.¹⁴⁷ On the other hand, Chinese leaders thus far have remained unresponsive to Taiwan’s requests that China stop pressuring other countries and international organizations to avoid contacts with Taiwan.¹⁴⁸ In August 2008, the PRC rejected a proposal submitted by some of Taiwan’s diplomatic partners that called for participation by Taiwan in UN specialized agencies. A PRC Foreign Ministry spokesman stated that the proposal “infringes upon China’s sovereignty and territorial integrity and intervenes in China’s domestic affairs ... the Chinese government and people firmly reject it.”¹⁴⁹

There is a strong interest throughout Asia in maintaining the cross-strait status quo and avoiding armed conflict between the People’s Republic of China and Taiwan. When a Commission delegation visited the Republic of Korea and Japan in August 2008, both Korean and Japanese officials and academics voiced concern about the effects that a serious crisis in the Taiwan Strait could have for the diplomatic, economic, and security environment throughout the rest of East Asia as well as for the course of future relations between their country and China. These interlocutors expressed the strong hope that Taiwan and the PRC both would refrain from any activity that would produce open conflict and that the United States would apply its influence and leadership toward

this end.¹⁵⁰ (Additional information on this issue can be found in both part 2: “Japan’s Relationship with China,” and part 3: “The Republic of Korea’s Relationship with China,” of this sec. 2 of chap. 4.)

Political Changes in Taiwan Over the Past Year

The year 2008 has been one of significant political change in Taiwan, with major alterations in the political makeup of both the legislative and executive branches of Taiwan’s government. In January, elections were held for Taiwan’s legislative body, the Legislative Yuan (LY), and in March, Taiwan elected a new president. Together, these elections dramatically rearranged the political landscape in Taiwan.

The LY elections in January notably changed the composition of that institution. In order to reform a body that many viewed as too large and unwieldy, Taiwan legislators and representatives of the two main rival political coalitions—the “Pan-Blue” Coalition, in which the Kuomintang (KMT) Party is the major partner, and the “Pan-Green” Coalition, in which the Democratic Progressive Party (DPP) is the major partner—had worked out an agreement to hold new elections for a reformed LY, with the number of seats reduced from 225 to 113. The Pan-Blue Coalition won 81 of the seats, with 27 going to the Pan-Green Coalition, and the remaining five seats going to smaller parties or independent legislators.¹⁵¹ As described by Ambassador Harvey Feldman, a retired senior State Department official with extensive experience in Taiwan, the results were “close to a total wipe-out for the DPP.” Ambassador Feldman noted that the KMT’s candidates had even performed well in areas of southern Taiwan that were traditional DPP strongholds.¹⁵² Pan-Blue’s control of Taiwan’s government was strengthened further when Taiwan’s presidential election in March was won decisively by KMT candidate Ma, a former mayor of Taipei who campaigned on a platform of improving relations with mainland China and of following pragmatic policies focused on Taiwan’s economy.

On the same day as Taiwan’s presidential election, two rival referenda initiatives appeared on the ballot regarding efforts by Taiwan to achieve representation at the United Nations. The first referendum, supported by former President Chen and the DPP, called for Taiwan to seek status as a new member state of the United Nations under the name “Taiwan.”¹⁵³ This initiative had been criticized by the U.S. government as an effort unilaterally to change the status quo between Taiwan and the PRC and had been even more fiercely condemned by the government of the PRC, which identified it as a move toward Taiwan independence.¹⁵⁴ A rival referendum, supported by the KMT, asked voters, “Do you approve of applying to return to the United Nations and to join other international organizations under the name ‘Republic of China’ or ‘Taiwan,’ or other name that is conducive to success and preserves our nation’s dignity?”¹⁵⁵ However, the KMT urged its supporters to boycott the first referendum and did not campaign on behalf of its own referendum. In the end, both referenda failed, because neither gathered the necessary participation of 50 percent of Taiwan’s eligible voters that is a prerequisite for referendum approval.

Debates on Economic and National Security Policy in Taiwan

During their August 2008 visit to Taiwan, Commissioners met with Taiwan government officials, DPP representatives, and representatives of the American Institute in Taiwan to discuss the new policies on economics, national security, and relations with mainland China that are being pursued by Taiwan's new government. President Ma expressed to the Commission delegation his hope that increased economic integration with the mainland, as well as the influence of Taiwan's "soft power" through student exchanges, expressions of democratic values, and other mechanisms, would both benefit Taiwan's economy and decrease the likelihood of a military clash across the strait. Representatives of the opposition DPP, on the other hand, expressed deep concern that these policies would weaken Taiwan's security and sovereignty in the face of pressure from the PRC.

In the economic realm, President Ma expressed high hopes that his policy of relaxing investment caps for Taiwan businesses operating on the mainland (moved to 60 percent from the previous limit of 40 percent of assets) would encourage some of these businesses to retain or relocate their headquarters operations in Taiwan and to reinvest their profits in Taiwan. He also expressed hope that warming cross-strait ties and a relaxation of travel restrictions could stimulate Taiwan's economy by bringing in large numbers of tourists from the mainland. President Ma also appealed strongly for completion of a U.S.-Taiwan free trade agreement, listing it as one of the most important things that the United States could do for Taiwan.

In stark contrast to these ideas, however, Tsai Ing-Wen, the new chairwoman of the opposition Democratic Progressive Party, expressed strong concern to the Commission delegation regarding the national security implications of increased economic integration with the PRC. She expressed the DPP's view that the policies of the Ma Administration would surrender Taiwan's sovereignty to the PRC without achieving any substantive PRC concessions in return and that increased economic integration would only give the PRC greater coercive leverage over Taiwan. She said that the "intrusion" of investment capital from the PRC would result in the loss of Taiwan's economic sovereignty as well as in negative macro-economic impacts such as speculative inflation in real estate markets. She emphasized the disappointing results thus far of increased mainland contacts for Taiwan's economy, citing as an example that an average of only about 300 tourists a day had been coming from the mainland following the advent of Ma's new policies, in contrast to the KMT's prediction during the election campaign that more than 3,000 a day would come to Taiwan. She identified these sorts of disappointing results as a major factor behind declines in President Ma's popularity ratings since the March election. Rather than opening up trade and investment links between Taiwan and the PRC, Dr. Tsai advocated industrial restructuring and improved education to increase competitiveness as the best means to further Taiwan's economic interests.¹⁵⁶

Discussions Regarding Arms Sales to Taiwan

The issue of arms sales from the United States to Taiwan was the most prominent military and security policy topic to emerge from discussions between Commissioners and Taiwan officials during the Commission's August 2008 trip. Taiwan relies predominantly on the United States for the acquisition of defensive weapon systems; in recent years, intense pressure from the PRC against other potential suppliers has meant that only the United States has been willing to sell arms to Taiwan. Aside from weapon systems, the United States also has provided Taiwan with limited assistance related to the modernization of its armed forces, such as U.S. government assistance, and approval for U.S. defense contractors to support Taiwan, in the "Po-Sheng" Project, an effort to upgrade and modernize the command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) capabilities of the ROC military.¹⁵⁷

In 2001, the George W. Bush Administration approved an extensive package of arms sales to Taiwan, including 12 P-3C maritime patrol and antisubmarine aircraft, Mark-48 torpedoes, Harpoon antiship cruise missiles, M109A6 Paladin Self-Propelled Howitzers, and four decommissioned Kidd-Class destroyers, and also offered to assist Taiwan to procure eight diesel-electric submarines. The sale of the Kidd-Class destroyers ultimately was finalized, and the ships were transferred to Taiwan in 2006.¹⁵⁸ However, partisan wrangling and disagreements over defense strategy in Taiwan's LY resulted in its repeated failure to approve funding for the other items.¹⁵⁹

Taiwan's 2008 defense budget (passed in December 2007) allocated funding for seven major arms purchases from the United States, valued at a total of approximately \$11 billion. These include the purchase of the P-3C aircraft; upgrades for Patriot PAC-2 surface-to-air missile systems; AH-64D Apache Longbow attack helicopters; and, perhaps most prominently, the purchase of 66 F-16C/D fighter aircraft.

Wang Jin-Pyng, the speaker of the Legislative Yuan, appealed for progress in approving the arms sales during a public appearance in Washington, DC, in late July 2008, and a delegation from the LY stressed a very similar message in a meeting with Commission staff members in the same time frame.¹⁶⁰ Taiwan officials have emphasized the importance of the F-16C/D request for Taiwan's security. In a February 2008 speech, President Ma referred to this request as "particularly important" due to the aging and growing obsolescence of many of the fighter aircraft of Taiwan's air force.¹⁶¹ President Ma, National Security Council Director Su, and Defense Minister Chen all reiterated this same message during their August meetings with members of the Commission.¹⁶²

The George W. Bush Administration approved some but not all of Taiwan's requested arms sales during the summer and autumn of 2008. In August, the United States proceeded with a \$90 million sale of sixty AGM-84 Harpoon air-to-surface antiship missiles to Taiwan, which are to be delivered in 2009.¹⁶³ In early October 2008, the Bush Administration formally notified Congress of its intention to make six arms sales to Taiwan: upgrades for four E-2T airborne early warning aircraft; 30 AH-64D Apache Longbow at-

tack helicopters; 330 Patriot PAC-3 surface-to-air missiles and associated support equipment; 32 submarine-launched Harpoon missiles plus two exercise missiles; spare parts and support equipment for F-5E/F, C-130H, F-16A/B, and Indigenous Defense Fighter aircraft; and 182 missile rounds and 20 launch units for the Javelin guided missile system.¹⁶⁴ The total estimated cost for these purchases is \$6.463 billion.¹⁶⁵ If Congress does not raise objections to the weapons purchases within 30 days following the formal notification—regardless of whether Congress is in session—the sales can occur under U.S. law.¹⁶⁶

The Bush Administration omitted two significant arms requests from the October notifications: a request for design assistance for diesel-electric submarines, and a request to purchase 60 UH-60 Blackhawk utility helicopters. The reasons the administration did not approve these particular purchases are not clear.

The sale of the F-16C/D fighters remains unresolved. At the time this Report was completed, the Bush Administration, according to one news report, had refused for over a year to accept a letter of request from Taiwan's government for information on the price and availability of the aircraft, the first formal step in the arms sale process.¹⁶⁷ The budget allocation from Taiwan's Legislative Yuan for the F-16C/Ds remains valid only until the end of December 2008; if the purchase is not approved by that point, the allocation will expire, and the funds will revert to Taiwan's treasury.¹⁶⁸

The administration's October 2008 Congressional notification of arms sales to Taiwan drew a predictably harsh reaction from PRC officials. A spokesman for the PRC's Ministry of Defense denounced the sales as "reckless" and said they had "vitiating the atmosphere for bilateral military relations and gravely jeopardized China's national security."¹⁶⁹ Beijing also abruptly cancelled a number of military-to-military contacts with the United States after the sales were announced and threatened to halt port calls by U.S. naval vessels and to withdraw from meetings related to restricting the proliferation of weapons of mass destruction.¹⁷⁰ At the time this Report was completed, such PRC responses appear limited to the realm of military and security affairs and not to extend to U.S.-China economic and diplomatic initiatives.

New Trends in Taiwan Regarding Defense Policy

In addition to the matter of arms sales, two other major issues related to defense and national security policy were discussed between members of the Commission and representatives of Taiwan's government in August 2008: the plan of Taiwan's Ministry of Defense to shift away from conscription and toward an all-volunteer military, and the PRC's continued missile buildup across the strait. On the matter of a potential future all-volunteer military for Taiwan, Defense Minister Chen confirmed that current plans and discussions are focused on the objective of downsizing to an all-volunteer force of 200,000 personnel within the next five years and that a task force has been established to study the best means of implementing this. He also said that Taiwan plans to begin force reductions of approximately 10 percent of personnel per year between now and 2013. Minister Chen also emphasized that the new gov-

ernment is committed to set annual defense spending at approximately 3 percent of Taiwan's gross domestic product.¹⁷¹

Addressing the matter of the PRC's missile buildup across the Taiwan Strait, Minister Chen expressed concern over the ability of PRC missiles to damage Taiwan's military facilities and infrastructure. He indicated that, in response, Taiwan should examine ways to harden its facilities and protect its communication systems. These comments aligned with President Ma's remarks to the Commissioners, in which he spoke favorably about a recent article titled "Revisiting Taiwan's Defense Strategy" by William S. Murray, an associate research professor at the U.S. Naval War College. In the article, the author criticizes the idea of Taiwan relying primarily for its defense on advanced air, naval, and missile systems and argues instead that Taiwan should adopt a defensive "porcupine strategy" to better equip itself to survive an extended blockade and/or missile bombardment.¹⁷²

President Ma laid out the fundamentals of his new defense strategy, which he has called the "Hard ROC" strategy, in a campaign speech in February 2008. In this speech, he stated:

*... [the] military deterrence ... pillar of national security is Hard ROC: to defend itself Taiwan has to be hard as a rock. Many members of the DPP elite have said publicly that to deter a Mainland invasion Taiwan should develop the ability to strike at the heart of Mainland China's military capability. They want 'offensive weapons.' We cannot approve of this plan of action. 'Offensive defense' is not only infeasible but also dangerous. ... In contrast to the aggressive, provocative, and destructive strategy of national defense offered by the DPP, we advocate establishing a Hard ROC defensive stance by building an integrated defensive capability that will make it impossible to scare us, blockade us, occupy us, or wear us down. ... We believe that Taiwan's defensive stance should be to arm and armor ourselves only to the point that the Mainland cannot be sure of being able to launch a 'first strike' that would crush our defensive capacity and resolution immediately. If the Mainland lacks confidence in this respect, its strategic calculations will become more complex and difficult, and the temptation to make a surprise attack will diminish. Taiwan's national security will naturally increase.*¹⁷³

These comments indicate a major change of direction from the "decisive operations off-shore"¹⁷⁴ defense strategy advocated by the administration of former President Chen. This defense strategy had called for the avoidance of battle on the land areas of Taiwan's densely populated western coastal area, seeking instead engagement with enemy forces in the air and sea in the waters surrounding Taiwan. This doctrine also had incorporated an element of deterrence strategy, including development of missile systems intended to hold at risk significant infrastructure targets and population centers along the southeastern coast of the mainland.¹⁷⁵ A centerpiece of this deterrent strategy was the development of a planned long-range (1000+ kilometer) variant of Taiwan's domestically produced Hsiung Feng IIE surface-to-surface missile system.

However, President Ma's administration announced in late August that it was suspending research and development work on this longer-range variant. Work will continue on the production and deployment of shorter-range variants intended for tactical strikes against military facilities and naval staging areas along the mainland coast.¹⁷⁶ This change is consistent with a conventional defense strategy to target military forces conducting an assault on Taiwan but effectively abandons a "strategic deterrent" strategy to deter an attack on Taiwan by threatening civilian and infrastructure targets on the mainland.

Conclusions

- The United States has an important interest in ensuring the survival of a democratic government in Taiwan. The United States has explicit commitments set forth in the Taiwan Relations Act to assist Taiwan with its own defense.
- While relations between Taiwan and the People's Republic of China (PRC) have improved over the past year, tensions remain, and unresolved issues regarding Taiwan's sovereignty and status continue to divide the two sides. The status of Taiwan creates a potentially dangerous situation that risks armed conflict if the relationship and its inherent tensions are not managed carefully by both sides.
- An armed conflict between the PRC and Taiwan would impair security, stability, and prosperity in East Asia and could involve the United States. It is in the interest of the United States to foster a peaceful resolution of Taiwan's international status and maintenance of a peaceful status quo until that resolution can be achieved.
- The successful peaceful change of government between rival parties in Taiwan during 2008 demonstrates the continuing maturation and stabilization of Taiwan's youthful democratic process.
- Taiwan's political discourse remains vibrant and strong, with pronounced policy differences between Taiwan's major political parties regarding economic ties with mainland China and the best means to provide for Taiwan's prosperity and security. Taiwan's new government has introduced significant shifts in economic and diplomatic policy that emphasize seeking improved relations and liberalized economic ties with mainland China while also seeking improved relations with the United States.
- Officials of Taiwan's government have indicated that they will follow a pragmatic policy of seeking membership in international organizations that do not require internationally recognized status as a state as a prerequisite for membership, and official observer status or other avenues for meaningful participation in international organizations that require statehood for membership.
- Officials in the Ma Administration have described a new defense policy that deemphasizes deterrent or power projection options directed against the mainland and instead relies on a more conventional defense strategy based on defensive weapon systems.

- Arms purchases from the United States are a keystone of Taiwan's plans for its future defensive forces, and those plans cannot be realized if the United States does not supply the weapon systems sought by Taiwan. No other country has been willing to sell arms to Taiwan in the recent past.

PART 2: JAPAN'S RELATIONSHIP WITH CHINA

Introduction

The U.S.-Japanese alliance is a vital relationship in Asia, making the Sino-Japanese relationship important to U.S. interests. Sino-Japanese relations are influenced by centuries of war, most recently World War II. Japan and China have strengthened their relationship in recent years by focusing on expanding economic opportunities. This has resulted in significant trade and investment between the two countries. In addition, they have expanded cultural, science and technology, and education interaction. In May 2008, the Government of Japan invited Chinese President Hu Jintao to discuss bilateral relations. As a result of the successful state visit, President Hu and then-Japanese Prime Minister Yasuo Fukuda issued a joint statement regarding a "Mutually Beneficial Relationship Based on Common Strategic Interests."¹⁷⁷ The visit marked a fresh start in bilateral relations in the 21st century, and both nations pledged to support greater cooperation.

Today, the Japanese government's official posture toward China is to encourage Beijing to participate more actively in the international community. In a 2008 joint statement, the two countries recognized that "the Japan-China relationship is one of the most important bilateral relationships for each of the two countries and that Japan and China now have great influence on and bear a solemn responsibility for peace, stability, and development of the Asia-Pacific region and the world."¹⁷⁸ To this end, Japan has encouraged China to improve compliance with its obligations to the World Trade Organization (WTO) and has promoted bilateral and multilateral dialogue through high-level exchanges and engagement in regional forums, such as ASEAN+3,* and APEC (Asia-Pacific Economic Cooperation). Japan and China also have cooperated in the Six-Party Talks aimed at improving security in Northeast Asia and globally by persuading North Korea to destroy its nuclear weapons and dismantle its nuclear program.

Trade and Economic Relations

Japan's economic relationship with China has been steadily growing over the past 10 years. From 1995 to 2006, Japanese investments comprised an annual average of over 8 percent of the total value of foreign direct investment in China.¹⁷⁹ After a steady rise in Japanese investments in China between 2001 and 2006, manufacturing investments dropped in the first two quarters of 2007.¹⁸⁰ This decrease is attributed to increasing labor costs in

* ASEAN is the Association of Southeast Asian Nations. ASEAN+3 includes the member nations of ASEAN plus China, Japan, and South Korea.

China, appreciation of the RMB, and Japan's shift to a broader foreign investment strategy, encompassing other nations like Vietnam and Thailand, in order to reduce risk.¹⁸¹ In addition, according to the Japan External Trade Organization (JETRO), the boom of Japanese-funded projects in China around the time of China's entry into the WTO in 2001 now is nearing completion, and the flow of funds from Japan has substantially slowed.¹⁸² Nonetheless, Japan ranked as China's third largest investor in 2006.

Japanese Investment in China, 2000–2006

Year	Number of Projects in China			Realized Foreign Direct Investment Value (\$ are in billions)		
	Japan	National Total	Share	Japan	National Total	Share
2000	1,614	22,347	7.22%	291.58	\$4.071	7.16%
2001	2,019	26,140	7.72%	434.84	\$4.688	9.28%
2002	2,745	34,171	8.03%	419.00	\$5.274	7.94%
2003	3,254	41,081	7.92%	505.41	\$5.350	9.45%
2004	3,454	43,664	7.91%	545.15	\$6,063	8.99%
2005	3,269	44,019	7.43%	652.97	\$7.241	9.02%
2006	3,208	41,501	7.73%	655.40	\$6.950	9.43%

Source: Ministry of Commerce (MOFCOM), China. www.fdi.gov.cn/pub/FDI_EN/Statistics/AnnualStatisticsData/AnnualFDIData/FDIStatistics,2006/t20070930_85380.htm.

Comparative Investments in China

Country/Region of Origin	Amount Invested 2006 (\$ in billions)	Amount Invested 2007 (\$ in billions)	Year-on-Year Growth
South Korea	\$3.99	\$3.68	– 7.89%
Japan	\$4.76	\$3.59	– 24.59%
Singapore	\$2.46	\$3.18	29.30%
United States	\$3.00	\$2.62	– 12.79%
Taiwan	\$2.23	\$1.77	– 20.43%

Source: U.S.-China Business Council, "Forecast 2008: Foreign Investment in China," p. 3. <http://www.uschina.org/public/documents/2008/02/2008-foreign-investment.pdf>.

China currently is Japan's largest import partner, accounting for 20.5 percent of Japanese imports, and second largest export partner, accounting for 15.3 percent of Japanese exports.¹⁸³ In 2007, China replaced the United States as Japan's largest trading partner, with imports and exports totaling over \$236 billion.¹⁸⁴ Although trade between China and Japan has been increasing, the Japanese Ministry of Economics, Trade, and Industry (METI) noted four concerns regarding Japan's relationship with China when Commissioners visited in Tokyo in August 2008. First, like the

United States, Japan has experienced an increasing number of food and product safety incidents involving Chinese imports, the largest of which, at the time of the visit, involved frozen dumplings tainted with high levels of pesticides. The case resulted in a temporary decrease in Japan-China trade of food products.

Japanese officials and companies also are very concerned about the rampant theft of Japanese intellectual property. METI officials described pirated Japanese television shows being posted on Chinese video-sharing Web sites and said Japan has been disappointed that in response to Japan's requests to China to remedy intellectual property rights (IPR) problems, China has evinced little concern.

The third issue raised with the Commission delegation is the growing impact of Chinese air pollution on environmental quality in Japan. China is now the world's largest consumer of coal, the second largest consumer of oil, and the world's largest emitter of carbon dioxide. The issue of the effects of China's pollution is discussed in more detail in chapter 3, section 1, "China's Current Energy Picture." In meetings with the Japanese Ministry of Foreign Affairs (MOFA), Commissioners learned that Japan has offered to work with China to help it reduce pollution while ensuring that environmental reforms do not impair China's economic growth. MOFA officials said that China's willingness to engage on environmental issues is growing but that China remains guarded concerning energy issues. In May 2008, the two countries agreed to continue research on carbon dioxide capture and storage techniques and to strengthen their cooperation on nuclear energy technology.¹⁸⁵

A major concern expressed to the Commission delegation in its meetings in Japan is China's adherence to obligations and commitments it accepted when it acceded to membership in the World Trade Organization. METI officials agree that Japan and the United States should cooperate in urging China to accept and fulfill its WTO responsibilities. In the context of discussing China's failure to meet its WTO obligations, METI officials told Commissioners that China's currency manipulation poses a significant problem and has distorted trade between China and Japan.¹⁸⁶

Another major economic issue affecting both China and Japan is their dependence on foreign sources of energy, potentially placing them in direct competition for natural resources. Japan imports 86 percent of its energy. It is the world's largest importer of liquefied natural gas and the second-largest importer of crude oil. The Japanese government supports measures for energy exploration within Japan's Exclusive Economic Zone (EEZ) and actively pursues energy efficiency measures. This two-pronged approach to energy policy is both an attempt to reduce carbon emissions and to bolster the country's energy security.¹⁸⁷

Territorial Issues

Over the last few years, Japan and China have clashed over maritime territorial disputes. In 2004, a Chinese submarine was discovered in Japanese territory off the southwest coast of Okinawa. China rejected Japan's protests and refused to issue an apology.

Days later, although they did not apologize, Chinese officials expressed regret and explained the intrusion as an accident.¹⁸⁸

A group of uninhabited islands in the East China Sea, known in Japan as the Senkaku Islands and in China as the Diaoyutai Islands, administered by Japan but in the EEZ each nation claims, has been another sore subject between China's and Japan's governments. (The islands also are claimed by Taiwan.) The Japanese government considers China's claims to the islands based on "geographic and historical value" to be baseless in light of international law.¹⁸⁹ Chinese activists reignited the dispute over the islands in 2004 when they landed on one of the islands and promptly were detained by the Japanese.¹⁹⁰ Early in 2007, a Chinese surveillance ship was detected some 18 miles off the Islands, setting off another round of territorial claims from Japanese and Chinese officials. Later in 2007, Japan formally protested China's gas exploration activities near the Senkaku Islands in what both claim as their EEZ.

The Japanese government has maintained that China's drilling in the East China Sea depletes natural gas from Japan's territorial seabed and infringes on Japan's EEZ; China disagrees and disputes Japan's claim.¹⁹¹ Japan contends that the demarcation line should be drawn at a point equidistant from the two countries, a practice established by the Law of the Sea Treaty to which both China and Japan are signatories,¹⁹² but China argues it is entitled to a greater share of the territory because China's continental shelf extends beyond the equidistant demarcation line between China's and Japan's coasts. China's preferred method of maritime delimitation, like the use of the equidistant point between countries, is recognized in the Law of the Sea Treaty but is increasingly outmoded in international law as a delimitation method.¹⁹³ Use by a nation of international law and treaties, and their interpretation and reinterpretation, to advance its sovereignty claims over another nation's sometimes is known as "legal warfare" or "lawfare." (The "lawfare" concept and China's uses of it are further addressed in chap. 2, sec. 2, "China's Views of Sovereignty and Methods of Controlling Access to its Territory.")

Tensions over the territorial dispute in the East China Sea were further heightened in 2003 when the Chinese concluded oil contracts with companies such as Royal Dutch/Shell and Unocal (now Chevron) to develop the Chunxiao oil fields four kilometers from the EEZ demarcation line Japan claims.¹⁹⁴ In June 2008, both sides reached a compromise that sidesteps the sovereignty debate and agreed to develop jointly the oil reserves in the area at issue. Japan agreed to invest in Chinese drilling, while both countries agreed to receive equal shares of the profits.

Japan's Defense Posture

As China continues its rapid military buildup and modernization, its Asian neighbors including Japan are taking notice. The Japanese Bureau of Defense Policy, in meetings with Commissioners in Tokyo, described the foremost problem of China's military buildup as its lack of transparency, a concern frequently raised by the United States.

Japan's defense industry is becoming concerned about supply chain security—also an issue of significance to many in the United States that has been addressed in previous Commission Reports to Congress. Interlocutors during the Commission's visit in Tokyo described the anxiety of Japan's military and civilian leadership concerning the integrity and reliability of Japan's defense systems supply chains as a result of using Chinese-manufactured subcomponents in Japanese defense equipment. The Commission also was told that Japan is evaluating options to ensure its defense supply chain is secure.

Japan has developed an outline for a five-year buildup of its Self-Defense Forces. Japanese officials say the plan is not aimed specifically at China. According to the Bureau of Defense Policy, the plan focuses on small contingencies near Japan. A range of contingencies, resulting from conflict over energy exploration in the disputed EEZ, the disputed Senkaku Islands, the Liancourt Rocks, an intruding Chinese submarine, or a war over Taiwan (which Japan recently indicated might be an issue it would consider pertinent to its own security), involve China.

In 1996, Japan and the United States issued a vague joint declaration that the two countries would work together to address "situation[s] that may emerge in the areas surrounding Japan and which will have an important influence on the peace and security of Japan."¹⁹⁵ In 2002, the Japanese Defense White Paper defined what might constitute one such situation, saying that "the issue of China-Taiwan relations, though a domestic issue from the Chinese perspective, is perceived as a security problem which threatens regional peace and stability."¹⁹⁶ The significance of the Taiwan issue to Japanese security again was clarified in 2005 when Japan and the United States issued a joint statement declaring that the peaceful resolution of the issue is a "common strategic objective" for both countries.¹⁹⁷

Conclusions

- The United States and Japan share similar concerns about China's commitments under the World Trade Organization, its increasing pollution, its failure to protect intellectual property, the safety of Chinese food and other imports, and the security of the supply chain of each country's defense industrial base.
- Japan and China have several territorial disputes, one of which is about the proper demarcation of their Exclusive Economic Zones in the East China Sea. Although these disputes have not been resolved, the two countries have found a temporary compromise in one case by agreeing to the joint development of the East China Sea's oil reserves.
- Japan plans to pursue a five-year buildup of the Japanese Self-Defense Forces that is designed to enable it to respond effectively to conflict scenarios near Japan, some of which could involve China.

PART 3: THE REPUBLIC OF KOREA'S RELATIONSHIP WITH CHINA

Introduction

Since they were normalized in 1992, relations between China and the Republic of Korea (ROK, or South Korea) have steadily strengthened—diplomatically and especially economically. In 2003, China overtook the United States as South Korea's largest trading partner.¹⁹⁸ The Republic of Korea sees good relations with China as essential to the South Korean economy, while concerns about industrial espionage and technology leakage from Korea to China continue to arise. Currently, the two countries are concluding a bilateral free trade agreement that may be finalized by the end of 2008 if sensitive trade issues such as the effect of cheap Chinese agriculture on the Korean market and of Korean automobiles on the Chinese market can be resolved.

Also indicative of the growing relationship between China and the ROK is the number of China-ROK "summits" that have taken place between the nations' presidents—three in as many years—and the number of state visits that have occurred since Hu Jintao became China's president five years ago. President Hu has made two state visits during this period compared to the one visit to South Korea Jiang Zemin made during his 10 years as president. President Hu has visited Japan only once since becoming president—the only visit to Japan by a Chinese president in 10 years.¹⁹⁹ In his only visit to Pyongyang during his presidency, President Hu visited North Korea in 2005. President Jiang made a visit in 2001.²⁰⁰

China is also important to the Republic of Korea because of the influence China holds with the Democratic People's Republic of Korea (DPRK, or North Korea). Therefore, Seoul is eager to use Chinese influence to advance its interests. As North Korea haltingly dismantles its nuclear weapons and nuclear production facilities, and as the threat of a nuclear attack by the North on the South remains, South Korea's government welcomes China's help in influencing North Korea to fulfill its agreement to dismantle the nuclear infrastructure.

Another concern shared by the South Korean and Chinese governments is the stability of the North Korean regime and the costs that would result for both countries if the regime were to collapse. Bordering Chinese provinces fear massive influxes of North Korean refugees. Many South Koreans hope to reunite the Korean people, who have been separated since the Korean War over 50 years ago. The poverty and isolation of the North Korean people and that nation's crippled economy, dilapidated or nonexistent infrastructure, and totalitarian government mean that rapid reunification in the

face of crisis would impose a terrible cost on the ROK and its people, far exceeding the costs to the Federal Republic of Germany of reunifying with East Germany in the 1990s. This is a major reason why the South wants any changes in the relationship to be planned and carefully executed.²⁰¹

South Korea has extensive economic relations with North Korea, as does China. This economic relationship offers an opportunity for both of North Korea's largest trading partners to influence its actions, and it is in the interest of both South Korea and China to maintain pressure on North Korea to dismantle its nuclear weapons program.²⁰² South Korean exports to North Korea have increased steadily since the early 1990s (the chart below shows the statistics for the years since 2000) while, at the same time, North Korean exports to South Korea also have climbed steadily. A collapse of the North Korean government would create an enormous dilemma for the region—and for South Korea and China in particular. Maintaining and increasing stability is a major reason for the two countries' large investments in North Korea.²⁰³ During the Commission's trip to Seoul in August 2008, interlocutors expressed concern that China may intend to intervene unilaterally in the event of regime collapse or instability in North Korea but is not consulting with or keeping South Korea informed of its plans and intentions in this respect.

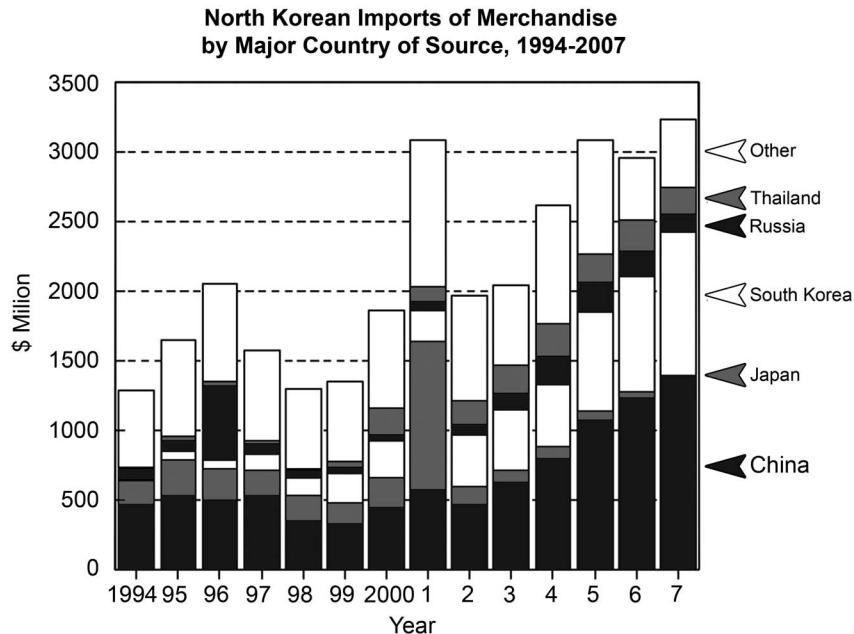
ROK leaders know China's influence with the DPRK leadership is a resource that can help reduce shocks and tension, but they also know that China's interests with respect to North Korea are different from those of South Korea. For example, Chinese security planners find that the status quo on the Korean Peninsula is in China's interests as opposed to an alternate scenario that places on its border a unified, democratic Korea allied with the United States.²⁰⁴ For its part, South Korea is actively working to effect the peaceful reunification of Korea and continue a strong alliance with the United States.

South Korean Merchandise Trade with North Korea, 2000–2007

(\$ are in millions)

Year	South Korean Imports	South Korean Exports	Total Trade	Balance
2000	\$152.37	\$272.78	\$425.15	\$120.40
2001	\$176.17	\$226.79	\$402.96	\$50.62
2002	\$271.58	\$370.16	\$641.73	\$98.58
2003	\$289.25	\$434.97	\$724.22	\$145.71
2004	\$258.00	\$439.00	\$697.00	\$181.00
2005	\$340.30	\$715.50	\$1,055.80	\$375.20
2006	\$519.56	\$830.20	\$1,349.76	\$310.64
2007	\$765.35	\$1,032.55	\$1,797.90	\$267.20

Source: "The North Korean Economy: Background and Policy Analysis" (Congressional Research Service, Washington, DC: February 9, 2005).



Sources: Data from UN COMTRADE Database, Global Trade Atlas, and (South) Korea Unification Ministry.

South Korean officials emphasized that, even as their country strives to strengthen relations with China, its most important relationship is with the United States. They told Commissioners that its decisions are made with careful attention to the ROK–U.S. relationship. As an example, ROK officials consulted with the United States before accepting China’s offer to become a “strategic partner.”²⁰⁵

Historical Issues

Some historical differences continue to cause tension in Sino-South Korean relations. In 2004, the Chinese Ministry of Foreign Affairs referred on its Web site to an ancient kingdom, Koguryo, that both North and South Koreans consider to have been an independent Korean realm, as a “subordinate state . . . under the jurisdiction of the Chinese dynasties.” This enraged Koreans. The South Korean government demanded that China correct the information, but China did not do so. Instead, the Chinese Ministry of Foreign Affairs removed all references to the Koguryo Kingdom from its Web site and blocked all Chinese language Web sites and publications critical of China’s disputed historical claim. Eventually, Chinese and ROK officials met to resolve the matter and reached a “verbal understanding” that “there would be no more government-level . . . attempts to distort the history of Koguryo” and that China would not lay claim to Koguryo in its textbooks.²⁰⁶ Many Korean people criticized the ROK government for what they saw as timidity toward Beijing that produced an inadequate agreement that in-

cluded neither a Chinese apology nor a correction of the original assertions on China's Foreign Ministry Web site.²⁰⁷ Several South Korean interlocutors mentioned this issue to the Commission delegation as a continuing source of tension between the two countries.

Territorial Issues

There is some disagreement between China and the Republic of Korea over the appropriate demarcation of their Exclusive Economic Zones (EEZ) where their EEZ claims overlap. Officials of both nations met in early July 2008 in an attempt to resolve this issue. It was the thirteenth such meeting, and, like previous sessions, it resulted in little progress on the issue.

China struck a deal with Japan in 2008 to explore jointly for gas in disputed portions of the East China Sea. South Korea also holds claims in the area and was irritated that it was not included in the negotiations and resulting deal. The ROK Foreign Ministry made a point of announcing that "the South Korean government is paying attention to the China-Japan agreement" and that "[m]aritime borders in the East China Sea among South Korea, China, and Japan are not decided yet."²⁰⁸

Security Issues

The largest security issue South Korea faces is the troubled relationship with North Korea. The Military Demarcation Line on South Korea's northern border has separated the two Koreas since an armistice was negotiated in 1953. Periodically over the 55 years that have passed, violence has erupted as a result of North Korean provocations at the land or sea borders or of incursions by the North into the South.

North Korea's nuclear test in 2006 generated a new set of regional tensions. North Korea's production and testing of ballistic missiles that could deliver their nuclear weapons over substantial distances exacerbated the tensions. As a result, five regional states (South Korea, China, Japan, Russia, and the United States) agreed to cooperate in an effort to reach an agreement with the DPRK that would eliminate its nuclear weapons arsenal. China has hosted and played a key role in the Six-Party Talks, leveraging its influence as a major donor to North Korea to keep the talks from imploding on several occasions. With both South Korea and China fearing an influx of North Korean refugees were the DPRK to collapse, they often shared an approach to the talks that arguably was less "hard line" than that of the other participants, particularly the United States. However, since President Lee Myung-bak took office in February 2008, the South Korean government has taken a more forceful posture toward the Six-Party Talks and at times has expressed concern about what it perceives as softness on the part of the United States. In general, the South Korean officials with whom Commissioners met during their visit in August 2008 felt that, as a result of the experience South Korea has had with China in the Six-Party effort, South Korea's relations with China have deepened.²⁰⁹

The Commission delegation received numerous assurances during its trip to Seoul that the South Korea-U.S. alliance is para-

mount among the ROK's diplomatic priorities. One official assured Commissioners that, even after the unification of the Korean Peninsula, the United States would be expected to play a big role in the region as a stabilizing force. Representatives of the Korea Research Institute for Strategy told Commissioners that one reason South Korea desires a strong U.S. presence is because the United States has no territorial ambitions in the region, in contrast to other regional actors in Korea's turbulent history.

South Korean military analysts, like those in the United States, continue to be surprised at the rapid pace of Chinese military modernization. Analysts from the Korean Institute for Defense Analysis, a government-funded think tank, expressed their concerns to Commissioners about China's military buildup. One analyst estimated that because of the pace and trajectory of the buildup, the Chinese military will become a threat to regional neighbors by 2020. Other analysts raised concerns about Chinese cyber operations, and their comments confirm that cyber intrusions originating from China are a concern to Asian nations, as they are to the United States.

Asked what Korea's likely response would be in the event China exercised its military option against Taiwan, one of the Commission's interlocutors expressed a strong hope that Korea would never be put in the position of having to refuse a U.S. request for assistance regarding a Taiwan conflict, because the risk to the ROK of alienating China is so great that it would strongly resist supporting the United States against China over Taiwan. Several other interlocutors also echoed the hope that the ROK would never be called on to respond to such a U.S. request for assistance, seeing it as requiring Korea to make a very uncomfortable choice.

Conclusions

- The United States continues to be a close ally of the Republic of Korea, even as South Korea seeks to strengthen and is strengthening economic and diplomatic relations with China. South Korea views the United States as a stabilizing presence in the region and sees the United States as continuing to play an important role, even if Korean reunification were to occur. In this vein, there appears to be a strong desire by South Koreans for the U.S. government to retain its military forces there.
- Republic of Korea-China trade continues to grow. South Korea believes that expanded trade with China is essential to its economic future. At the same time, many South Koreans fear the loss of their technologies to China and consequent loss of commercial leadership.
- North Korea is the Republic of Korea's largest security concern. The concern includes North Korea's nuclear capability, its missiles, and anarchy resulting from possible regime collapse.

PART 4: HONG KONG²¹⁰

Development Toward Universal Suffrage?

In the Commission's 2007 Annual Report to Congress, the Commission examined Hong Kong's movement toward universal suffrage, as guaranteed under the Basic Law, Hong Kong's mini-constitution. Under articles 45 and 68 in the Basic Law, both the chief executive and the members of the Legislative Council are to be elected, with the "ultimate aim" of election by universal suffrage.

The Basic Law does not specify when universal suffrage will be implemented and, to date, Beijing has delayed its realization. In 2004, the National People's Congress Standing Committee in Beijing ruled that universal suffrage would not apply to the chief executive election in 2007 and the Legislative Council election in 2008. The next elections for chief executive and the Legislative Council will both occur in 2012.

In the 2007 election for chief executive, Donald Tsang, the incumbent, included in his campaign a promise to resolve the issue of universal suffrage by 2012. After his reelection, steps were made toward this promise when in July 2007 he issued a report, labeled a "Green Paper," detailing various proposals and options for implementing universal suffrage. The paper was opened to a period of public consultation that ended in October. Following the consultation period, in December Chief Executive Tsang submitted to the Standing Committee a "Report on the Public Consultation on Constitutional Development and on whether there is a need to amend the methods for selecting the Chief Executive of the Hong Kong Special Administrative Region and for forming the Legislative Council of the Hong Kong Special Administrative Region in 2012."²¹¹

The Standing Committee responded with the following decision: limited reforms to the electoral system for both the chief executive and Legislative Council may occur for elections in 2012, but these reforms may not fully implement universal suffrage. Any electoral reforms must occur according "... to the principle of gradual and orderly progress. ..." ²¹² Also, functional constituencies representing business and industry interests will retain half the Legislative Council seats, and geographic-based popular representation will not increase.

According to the decision, universal suffrage may be implemented by 2017 for the chief executive election, and afterwards, as early as 2020, the Legislative Council may be elected by universal suffrage.²¹³ Before this occurs, two conditions must be met. Prior to 2017 and 2020, the Legislative Council must approve with a two-thirds majority an amended format for both elections. In addition, the chief executive and the Standing Committee in Beijing must approve the amendments.

Even after approving these gradual reforms, the Standing Committee limited future candidates for the chief executive to those who have been approved and nominated by a nominating committee²¹⁴—which will allow Beijing to screen candidates and disqualify any who may oppose its policies or authority. During the visit to Hong Kong of a Commission delegation in April 2008, pro-democracy legislators argued that Beijing will wait to allow universal suffrage for the chief executive until officials there are persuaded that a pro-Beijing candidate will win the election.

While China's decision has been billed as a timetable for universal suffrage, it offers no guarantee. The ruling enables the Standing Committee to delay any movement toward universal suffrage if it concludes the reforms did not occur in an "orderly manner."²¹⁵ Pro-democracy legislators expressed their concerns to Commissioners that Chief Executive Tsang will propose electoral reforms that provide less than universal suffrage, and the pro-democracy Council members may feel compelled to accept them to prevent a public perception that the legislators are being obstinate. The Standing Committee could use instances of opposition to proposed reforms to rule that all reforms should be halted in the face of disorderly conduct. An analysis by the Economist Intelligence Unit concludes,

*The Hong Kong government and pro-Beijing blocs within the legislature will attempt to portray any criticism by the pro-democracy parties of their reform agenda as endangering the reform itself. Countering such perceptions, and taking pains to appear constructive, will be of critical importance to the pan-democrats, who suffered a fall in popularity after voting in 2005 against minor reforms that would have made the political system slightly more democratic.*²¹⁶

Under these circumstances, the move toward universal suffrage has not been conclusively halted, but it has been delayed beyond 2012—a full 15 years after the British colony was returned to Chinese control. A timely transition to universal suffrage is in the interests of the Hong Kong people in pursuing human rights and democracy under the "one country, two systems" model that was created in 1997.

Legislative Council Elections

Following the Standing Committee's ruling, Hong Kong prepared for its September 2008 Legislative Council elections. A total of 204 candidates vied for 30 seats representing Hong Kong's geographical areas and 30 seats representing functional constituencies. Election turnout—45 percent of registered voters—was lower than for previous Legislative Council elections. Emily Lau of the Frontier Party, and other pro-democracy advocates in Hong Kong, maintained that the Beijing and Hong Kong governments dissuaded people from participating. She stated that Beijing curbed media coverage of and advertising for the election so that it was "an election few people knew about."²¹⁷

Despite the lower turnout, the pro-democratic candidates captured 19 out of 30 geographical seats (up from 18 seats in 2004) and four seats in the functional constituencies (down from seven seats in 2004).²¹⁸ This is sufficient, under Hong Kong law, to enable them to veto proposed government legislation.²¹⁹ The pro-Beijing Democratic Alliance for the Betterment of Hong Kong, widely considered the largest challenge to pan-democrats, won 10 seats (down from 12 seats in 2004).²²⁰

Political analysis following the election suggests that voters linked the Hong Kong economy's slowdown with Chief Executive Tsang's policies and therefore supported democratic candidates in their bid to make the Hong Kong government accountable for policy mistakes.²²¹ This analysis also indicates that voters care about the quality of governance in Hong Kong, especially as it relates to their livelihoods. For example, the League of Social Democrats, a pro-democracy party that aggressively opposes the Hong Kong government, increased its seats in the legislature from one to three as a result of courting strong grassroots support among residents who are not among Hong Kong's social or economic elite. Observers view this as "a warning sign to the government" that it will have to respond to the needs of everyday citizens.²²²

The Politicization of Entry into Hong Kong and Restricted Entry into the Mainland

In August 2008, Hong Kong customs officials blocked the entry of Yang Jianli, a Chinese citizen and activist exiled to the United States, who was trying to enter Hong Kong with a valid Chinese passport. Yang was planning to participate in a human rights walk in Hong Kong and then visit Sichuan Province in mainland China to explore the possibility of building an elementary school in the area devastated by an earthquake earlier in 2008.²²³ In the same month, Chinese leaders refused to authorize a visa to Wang Dan, a Chinese citizen and exiled dissident who participated in student-led protests in Tiananmen Square in 1989, to attend a forum organized by religious and human rights groups in Hong Kong.²²⁴ At the time this Report was completed in October 2008, Hong Kong immigration officials have refused entry into Hong Kong of 14 American citizens, and most of these refusals occurred during the periods prior to the Olympic torch relay in Hong Kong and the Olympic Games in August.²²⁵

The refusal by Hong Kong customs officials to allow Yang Jianli to enter Hong Kong with a Chinese passport, and the refusal of Chinese consular officials to grant Wang Dan a visa to enter Hong Kong, represent challenges to the "one country, two systems" principle that purportedly grants Hong Kong substantial autonomy in conducting its economic and political affairs—in accord with the Basic Law and other laws and regulations subordinate to it. The Hong Kong government states that, under this system, "The courts continue to administer justice independently, while Hong Kong's own police, immigration, customs and excise, and anti-corruption officers have remained responsible for maintaining law and order in the [Special Administrative Region]." ²²⁶ However, the actions to bar Yang Jianli and Wang Dan raise concern that China may be

exercising undue influence—beyond the law applicable to Hong Kong—with respect to the Hong Kong government’s actions, particularly concerning freedom of movement and freedom of speech.

The successful implementation, preservation, and practical application of the “one country, two systems” model in Hong Kong—whether regarding when universal suffrage will be achieved or regarding the extent to which Hong Kong’s government is permitted to act autonomously to the extent provided in the Basic Law—should be and is of great interest and concern to the United States, and the Commission will continue to monitor the development of the relationship between China and Hong Kong, the protection of basic freedoms guaranteed by law, and the promotion of democracy. The way in which China honors its commitments that are manifest in the documents that provided for Hong Kong’s reversion to China’s control will be considered carefully by the United States as the U.S. relationship with China expands and deepens.

In addition to the refusal of entry into Hong Kong, China imposed visa restrictions limiting movement between Hong Kong and the mainland. The Ministry of Foreign Affairs of the People’s Republic of China claimed that these restrictions, beginning in March 2008, were intended to boost security prior to the Olympics.²²⁷ Foreign visitors to China, including businesspeople who reside in Hong Kong, were restricted to single- or double-entry visas valid for up to three months. Applications for multiple entry visas, useful for facilitating business travel, were denied. Moreover, when applying for visas, applicants had to produce proof of advance hotel and return flight reservations, which often is impractical for businesspeople traveling on short notice.²²⁸

Commissioners learned during their visit to Hong Kong in April that these limitations caused significant logistical problems for American businesspeople working in Hong Kong. These visa restrictions directly affected businesspeople who travel regularly between Hong Kong and the mainland and hindered business operations and the development of business opportunities in China. In mid-October, China reportedly lifted these restrictions.²²⁹

U.S. Port Calls in Hong Kong

In November 2007, China blocked the entry into the port of Hong Kong of the USS *Kitty Hawk* aircraft carrier battle group with 8,000 sailors after having previously approved the visit, and without providing an explanation.²³⁰ The port call was scheduled over the Thanksgiving holiday, and many families of U.S. sailors had traveled there to celebrate the holiday. As suddenly as it had denied entry, Beijing reversed its decision, based on “humanitarian grounds,” given the number of sailors’ families waiting in Hong Kong, but by that time, the battle group already was under way to return to its home base in Japan.²³¹

Even more troubling was Beijing’s denial of entry days before on November 20 to two U.S. Navy minesweepers, the USS *Patriot* and the USS *Guardian*, that were seeking shelter in Hong Kong’s harbor during a severe storm.²³² Admiral Timothy Keating, commander of the U.S. Pacific Command, criticized China for this action, saying that China violated a global “unwritten law” that all

countries provide safe harbor when sailors are in need.²³³ After U.S. officials lodged a formal protest with China's government about these two incidents, Chinese state media reported that the denials of permission to enter the port occurred because the U.S. government proposed to sell to Taiwan upgrades to its Patriot anti-missile batteries,²³⁴ but the Chinese government never provided a formal apology or official explanation for these actions. However, when the United States next sought permission for a naval ship to enter Hong Kong harbor, the permission was granted, and in January 2008 the U.S. Seventh (Pacific) Fleet's command and flagship, the USS *Blue Ridge*, made a port call.²³⁵

Conclusions

- The United States maintains a keen interest in the development of democracy in Hong Kong and adherence to the "one country, two systems" principle permitting that development. The Commission remains concerned about China's willingness to honor its commitment to establishing universal suffrage in Hong Kong. Electoral reforms in Hong Kong that fall short of universal suffrage will damage confidence in the implementation of the "one country, two systems" principle.
- China's denial of entry to ships visiting Hong Kong is of great concern to the United States, especially when such denials are based on reactions to the internal policies of the United States. Denial of permission to a ship to enter Hong Kong harbor is even more disturbing when the ship is seeking safe harbor during a severe storm.
- Hong Kong immigration officials' refusal of entry for Chinese and American citizens during Olympic events suggests that a supposedly independent entry process has been influenced and politicized by the PRC government. Furthermore, Beijing's restrictions on visas for entry into China by American businesspeople living in Hong Kong placed stress on the business environment before and during the Olympics and hindered the growth of new business opportunities.

RECOMMENDATIONS

China's Expanding Global Influence and its Foreign Policy Goals and Tools

- The Commission recommends that Congress support the administration's efforts to pursue a dialogue with China on international aid and investment in the developing world and urge the administration to seek agreement from China on implementing transparent policies and practices for foreign development assistance.
- The Commission recommends that Congress urge the administration to take additional steps to discourage arms sales by China to countries and regimes of concern and to sanction governments, companies, and individuals that permit the weapons they sold or purchased to be retransferred to state or nonstate actors engaged in military conflicts with U.S. forces or the forces of friends and allies.

China's Relationships and Activities in East Asia

Taiwan

- The Commission recommends that Congress encourage the administration to continue to work with Taiwan to modernize its armed forces.
- The Commission recommends that Congress urge the administration to continue to support Taiwan's meaningful participation in international organizations in which de jure statehood is not a prerequisite for participation, and to push energetically for arrangements that permit Taiwan to participate meaningfully in the activities of other international organizations including the specialized agencies of the United Nations, and for the World Health Organization/World Health Assembly to grant Taiwan official observer status.

Japan

- The Commission recommends that Congress urge the administration to encourage Japan and China to settle their territorial disputes peacefully.
- The Commission recommends that Congress urge the administration to negotiate an agreement with Japan to share information about contaminated and unsafe food and products exported from China.

South Korea

- The Commission recommends that Congress direct the administration to establish a formal dialogue with the government of South Korea regarding technology transfers or losses to China that might affect national security.

Hong Kong

- The Commission recommends that Members of Congress, when visiting mainland China, also visit Hong Kong and that Congress encourage senior administration officials, including the secretary of State, to make visits to Hong Kong part of their travel to China.
- The Commission recommends that Congress reenact the United States-Hong Kong Policy Act of 1992, which expired in 2007.
- The Commission recommends that Congress encourage its Members to seek opportunities for dialogue with members of the Legislative Council in Hong Kong.
- The Commission recommends that Members of Congress, in their meetings and dialogues with members of China's National People's Congress, raise the importance of the development in Hong Kong of an electoral system with universal suffrage.

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CHAPTER 5

CHINA'S MEDIA AND INFORMATION CONTROLS—THE IMPACT IN CHINA AND THE UNITED STATES

“The Commission shall investigate and report exclusively on—
...
“FREEDOM OF EXPRESSION—The implications of restrictions
on speech and access to information in the People’s Republic of
China for its relations with the United States in the areas of
economic and security policy. ...”

The Background of China’s Propaganda Apparatus

The propaganda system of the People’s Republic of China (PRC) exercises control of information as a form of state power. It does not limit itself simply to monitoring and censoring news but instead has developed into “a sprawling bureaucratic establishment, extending into virtually every medium concerned with the dissemination of information. ...”¹ The list of institutions subject to the authority of the Chinese Communist Party’s (CCP) Central Propaganda Department (hereafter “Propaganda Department”) includes not just traditional media outlets such as newspapers and television stations but also public and party educational institutions as well as cultural and entertainment institutions such as musical and theatrical performance troupes, film studios, clubs, libraries, and museums.² National-level policy directives related to media and information control formulated by the senior party leadership flow downward through the Propaganda Department, which then exercises its supervisory authority over media outlets and other subordinate entities. The Propaganda Department is both a highly influential and highly secretive body: it is not listed on any official diagrams of the Chinese party-state structure, its street address and phone numbers are classified as state secrets, and there is no sign outside the Propaganda Department’s main office complex in Beijing.³

The Propaganda Department’s authority has little *de jure* basis in codified law, but its *de facto* power over entities that disseminate information is considerable. Anne-Marie Brady, senior lecturer in the School of Political Science and Communication at the University of Canterbury, has noted the Propaganda Department’s preference for issuing oral instructions rather than written policy statements and described this as “a deliberate attempt to avoid a paper trail and a mark of evidence that the CCP recognizes the

shaky legal grounds for the [Propaganda Department's] powers.”⁴ Jiao Guobiao, a former professor of journalism at Beijing University, created a sensation in 2004 with an Internet article that referred bitterly to the Propaganda Department as “a dark empire in which the rays of law do not shine” and harshly criticized it for claiming a monopoly on truth and for protecting corrupt interests at the expense of common people.⁵ Following the posting of that article, Jiao was blacklisted from publication and later fired from his job.⁶

Control Exercised by the Propaganda Authorities Over Personnel Appointments

The Propaganda Department maintains control over media and other information outlets through its authority over personnel appointments in a broad swath of the Chinese bureaucracy and media. The Propaganda Department and its provincial subordinate branches have broad authority over all senior personnel in the education, media, and cultural sectors and initially vet candidates who then are formally appointed by the CCP's Central Committee Organization Department or by local CCP committees.⁷ The list of agencies and institutions subject to Propaganda Department approval for appointments includes but is not limited to the Xinhua News Agency; flagship newspapers such as the *People's Daily*; the State Administration for Radio, Film, and Television, and the General Administration for Press and Publications, which exercise direct authority over broadcast media and print media, respectively; the Ministry of Culture; and professional associations of artists and writers.⁸ This wide-ranging authority gives the Propaganda Department enormous indirect control over information content without the need for direct intervention in the day-to-day operations of all these institutions.

Many western academics and officials may be unaware that the personnel of prominent academic institutions in the PRC also are subject to Propaganda Department approvals. The Chinese Academy of Social Sciences, for example, which performs social science research work in conjunction with many western academic institutions, is subject to the “guidance” of the Propaganda Department,⁹ and its leading personnel are considered to be of sufficient importance to be mutually selected by the Propaganda Department and the CCP Central Committee.¹⁰

The Propaganda Department has been one of the state entities involved since the early 1990s in an active effort to co-opt academics and promising students into party membership and loyalty by offering them greater opportunities for employment, career advancement, and other perks.¹¹ This means that western academics and other influential shapers of public opinion who conduct research and academic exchanges with Chinese interlocutors are working alongside individuals who have been selected at least in part for their assessed reliability in conveying the propaganda narratives of the CCP.

The central role of the Propaganda Department is to maintain the regime in power. As its Director Liu Yunshan said in 2003, "One of the primary tasks of journalists is to make the people loyal to the Party."¹² President Hu Jintao has reinforced this task, stating in a speech in June 2008 that the first priority of journalists is to "correctly guide public opinion" in support of the party.¹³ However, the ideological rationale for the work of the propaganda apparatus extends beyond this political role, encapsulating a vision of the state as the rightful mentor for the thinking of its citizenry. Dr. Brady has quoted a Chinese official as stating that "propaganda work is spiritual work" and that propaganda officials are like priests guiding their flock.¹⁴

In line with this concept of "guiding" thinking, the propaganda apparatus does not limit its efforts solely to the suppression of unwelcome information. The system focuses on proactive propaganda, shaping messages in the media and entertainment fields that it believes its target audience should receive and the ideas it should believe.¹⁵ Chinese Internet expert Xiao Qiang testified that Chinese Internet executives receive messages several times a day via cell phone, e-mail, or text messages, providing them with instructions on the shaping of content on their Web sites.¹⁶ Similarly, journalists are subject to regular mandatory meetings with propaganda officials to receive directions on news content and since 2003 also have been subjected to intensified political study classes intended to tighten the party's ideological control over the media.¹⁷ This attitude on "guiding" the thinking of the public also extends to foreign journalists: One western reporter described being scolded by Chinese officials in 2008 for the failure of western journalists to "do more work aimed at leading public opinion in an impartial ... way."¹⁸

The Concept of "Information Sovereignty"

The CCP also has sought to justify its restrictions on information with an element of nationalist pride by invoking the concept of "information sovereignty."¹⁹ This concept posits that all states manipulate information for their own ends and that the media outlets of western countries are manipulated by their governments to present news in a fashion that is hostile to China. What arises from this approach is the rationale that the Chinese state must monitor and control the information available to its citizens in order to protect them from "information hegemony."²⁰ This is particularly the case when that information might come from a foreign source. One article from a Chinese legal journal introduces the concept this way:

*Information sovereignty is a new form of sovereignty against the backdrop of the internet and globalization, meaning the ability of a country to protect, manage, and control information. There are natural contradictions between sovereignty and the internet's open, virtual, and globalized character. The globalization of information against the backdrop of the internet presents a severe test to traditional sovereignty, and developing countries are faced with the threat of information hegemony.*²¹

Such warnings about “information hegemony” are not isolated instances: officially sanctioned commentators in the media have criticized U.S.-based media outlets for disturbing the “ideological mindsets and cultural foundations” of other countries by exporting U.S. values and have asserted that Chinese people “must be serious and vigilant” in the face of “U.S. cultural hegemony assaults and infiltration.”²² He Qinglian, a former journalist from China, has asserted that pervasive propaganda has convinced many Chinese youth of the veracity of such assertions. She indicates that her research supports that “it is not uncommon for young people to hold the view that ‘as a scientific and technological superpower, America controls the main web portals and uses them to promote its hegemony.’”²³

Anxieties on the part of the propaganda authorities regarding their ability to maintain “information sovereignty” go beyond content. There also are concerns about foreign entities acting as conduits of information, particularly western companies acting in the role of Internet service providers. Expressing alarm that foreign companies could be the conduit for information relayed to Chinese citizens, one article from the *People’s Daily* has asserted the need to develop further domestic Chinese Internet services and blogging portals so that reliance on those provided by foreign companies can be reduced or avoided:

*In the internet age, the virtual behavior of citizens on-line must also abide by our national basic laws and regulations, and the digital foundation of the on-line activities and existence of our citizens comes in a variety of forms (such as blog service). . . . Currently, in considering the supply of blog site service providers to our domestic netizens, except for a few large-scale domestic blog service providers . . . there is no shortage of foreign blog service providers such as MSN Space . . . although netizens may register domestically, their activities, information, and data are in the hands of foreign service providers, leading to a weakening of the foundations of our citizens’ information sovereignty, and what is most fundamentally shaken in this is the foundation of national information sovereignty.*²⁴

Such statements suggest aspirations to construct a future Internet infrastructure entirely internal to China. Jiang Mianheng, vice president of the Chinese Academy of Sciences and son of former President Jiang Zemin, has voiced support for such an idea, stating that “China needs to build a national internet network that is separate from the World Wide Web.”²⁵ However, it remains to be seen how broadly this view is held among China’s leadership or how far the government might go toward implementing such a goal.

The idea of “information sovereignty” appears to reflect a deep-seated fear on the part of party leaders that sources of information coming from abroad—particularly those originating in the United States—are potentially linked to active efforts to subvert CCP rule. Officially sanctioned PRC media articles reveal great anxiety about “color revolutions”—i.e., the nonviolent protest movements such as the “Orange Revolution” in Ukraine, the “Rose Revolution” in Georgia, and the “Tulip Revolution” in Kyrgyzstan—that overthrew au-

thoritarian post-Soviet governments in those countries. In the context of explaining why Beijing had maintained restrictions on the ability of foreign newspapers to publish in China, Shi Zongyuan, the head of the State Press and Publications Administration, said in late 2005, “When I think of the ‘color revolutions,’ I feel afraid.” Shi’s statements were paralleled by the August 2005 announcement of regulations intended to “defend cultural security” by restricting foreign involvement in the media.²⁶

Means of Information Control Exercised by the Propaganda System

The control exerted by the Propaganda Department and its subordinate bodies is not absolute. Some observers have conceded that there has been some relaxation of controls on social issues that do not directly challenge the authority of the CCP,²⁷ and there is considerable reporting in the Chinese media on social issues and popular culture that would have been unthinkable prior to the beginning of the reform era. On economic affairs, the party trumpets rapid economic growth benefiting all strata of Chinese society. Media officials have been advised since 1989 that they have wider latitude to report on economic issues under guidance that “political topics are sensitive, economic topics are relaxed.”²⁸

The emergence of commercial pressures and incentives on media outlets has added new dimensions to the efforts of China’s propaganda authorities to control information. Commercial incentives provide some impetus for more independent editorial initiative and more aggressive investigative reporting. For example, bonuses make up a large percentage of the salary of Chinese journalists—with the popularity of their reports being a critical factor in determining the extent of their bonuses—thereby providing a strong incentive to publish material that will grab public attention. However, this factor can cut both ways: Because Chinese journalists are so dependent on bonuses, they also have a powerful incentive to avoid risking them by running afoul of the authorities, and therefore they may engage in self-censorship.²⁹

The proliferation of news outlets also has created a phenomenon sometimes called “information cascade,” in which information suppressed in one region can be published or disseminated in another region, thereby making censorship more difficult.³⁰ One example of “information cascade” was seen in the aftermath of the tragic Sichuan earthquake of May 2008. Although there was a brief period of increased media openness in the immediate aftermath of the quake, authorities moved quickly to reassert central control of the media narratives surrounding the quake relief effort.³¹ However, government efforts to suppress reports of official malfeasance—such as alleged negligence and corruption related to the shoddy construction of school buildings and the resulting loss of life among schoolchildren—were frustrated by the movements of reporters across provincial boundaries. In late May, the Guangzhou-based newspaper *Southern Weekend* ran a report about the school collapses, which included interviews with education officials indicating that the collapses could not be blamed on the quake alone. As stated by one journalist from Guangdong who was dispatched

to Sichuan to report on the quake, "It is usually easier for us to write reports critical of local governments elsewhere."³²

Chinese Press Freedom Over the Past Year

Media and Information Control Related to the Olympics

In 2001, when the International Olympic Committee was considering Beijing as a venue for the 2008 Olympics, officials of the Chinese government made public promises that media freedom would be respected if Beijing were to be selected as the site of the games. Wang Wei, secretary general of the Beijing bidding committee, said, "I think we will give the media complete freedom to report when they come to China ... we have made our guarantees in our bid document so all the world's media will be welcome to come to China."³³

It is clear that Wang's comments applied only to the international media and not to China's domestic media outlets. Furthermore, the comments appear to represent tactical moves made to secure the games for China rather than literal statements of policy intent to liberalize Chinese media restrictions. Controls on domestic journalists actually were tightened, as anxiety regarding social stability and public disturbances during a "sensitive" and high-profile period led the Chinese authorities to regulate the media even more tightly. One example is the set of 21 edicts issued by the Propaganda Department in July 2008 to Chinese media outlets, directing them how to approach news coverage during the games.³⁴ Among these were directives to avoid coverage of Internet policy, religious and ethnic issues, consumer product safety, and the officially designated Olympic protest parks in Beijing.³⁵

The picture regarding foreign journalists in China is more complex. Reporters Without Borders recognized limited improvement of access for foreign journalists in the past year but also noted that the travel of journalists in "sensitive" areas (e.g., those experiencing ethnic unrest, etc.) is still restricted.³⁶ In testimony before the Commission, Randolph Kluver, Chinese media expert and research professor at Texas A&M University, noted that some journalists experienced an improved environment in China, particularly regarding the relaxation of travel restrictions; others, however, described frustrating and opaque government regulations that stymied their work, and efforts by government officials to limit news coverage narrowly to the Olympic Games. Dr. Kluver also said that there was greater government interference in the work of broadcast journalists than of print journalists, and greater suspicion and scrutiny directed at journalists from the United States and the United Kingdom in particular.³⁷ Before and during the games, western journalists attempting to operate around Beijing reported difficulties such as getting broadcasting equipment through customs, and government attempts strictly to monitor the locations of all satellite broadcast trucks throughout the city.³⁸ During this same period, the government also increased monitoring and censorship of the Internet activity of visitors to Beijing (as described in further detail in the next portion of this chapter).

Some of the measures taken by Chinese authorities to exert control over foreign journalists could be attributed to the government's intense desire to present to both the world and to China's own citizens the positive image of a government smoothly in control of such a high-profile event of global significance.³⁹ However, restrictions on the activities of visiting journalists and stepped-up efforts to keep them under surveillance also revealed the Chinese government's continuing anxiety over the prospect of either visiting foreigners or Chinese citizens threatening "social stability" by using the games as a platform for publicizing human rights issues, advocating democratic political reform, protesting on behalf of suppressed minority or religious groups, or publicizing the grievances of individual Chinese citizens or communities.

In October 2008, the Chinese government announced that the liberalized regulations introduced during the Olympics period pertaining to foreign journalists will be made permanent, thereby giving foreign journalists greater latitude to travel and conduct interviews without prior government permission. Certain restrictions will remain in place, however, particularly those regarding travel to "sensitive" areas such as Tibet. The more liberal rules for foreign journalists will not be extended to China's own domestic media outlets, which will remain subject to strict government controls.⁴⁰

Chinese Government Control of the Internet

The Chinese Government's Internet Control Regime

China operates what is arguably the most extensive and sophisticated Internet control system of any nation in the world.⁴¹ That system consists of two parts: a filtering infrastructure directly operated by government officials, and a more decentralized system of monitoring for which private companies and other institutions are made responsible. The former is known collectively as the "Golden Shield Project." At the heart of Golden Shield is a physical architecture for directly monitoring much of the Internet traffic into and out of the country. Author James Fallows has described this system as follows:

... virtually all internet contact between China and the rest of the world is routed through a very small number of fiber-optic cables that enter the country at one of three points: the Beijing-Qingdao-Tianjin area in the north, where cables come in from Japan; Shanghai on the central coast, where they also come from Japan; and Guangzhou in the south, where they come from Hong Kong. ... The Chinese authorities can ... physically monitor all traffic into or out of the country. They do so by installing at each of these few 'international gateways' a device called a 'tapper' or 'network sniffer,' which can mirror every packet of data going in or out. ... Information travels along fiber-optic cables as little pulses of light, and as these travel through the Chinese gateway routers, numerous tiny mirrors bounce reflections of them to a separate set of 'Golden Shield' computers.⁴²

The Golden Shield is accompanied by a workforce of Internet monitors to screen suspect material and block forbidden Web sites. There are no publicly available official figures on the size of this force, but some sources estimate that it consists of approximately 30,000 personnel.⁴³ Chinese Internet expert Xiao Qiang has assessed the actual figure to be much higher.⁴⁴ Besides shutting down or blocking sites judged to be subversive, these Internet monitors also serve a more proactive role. They are actively engaged in many chat rooms and message boards where they monitor the discourse on potentially sensitive topics and attempt to steer the flows of conversation into territory more amenable to the preferred narratives of the party.

These efforts are augmented by a loose network of individual Internet commentators paid by authorities to search for undesirable information and to post pro-government messages on the net. They also engage in online debates with those posting thoughts that might not match the party line. This group is sometimes called the “Fifty Cent Party,”⁴⁵ because its members reportedly are paid half an RMB for each pro-government posting they make. Further explaining the impetus behind the creation of the Fifty Cent Party, one author has written:

In 2004, an article on a major Chinese web portal alleged that the United States Central Intelligence Agency and the Japanese government had infiltrated Chinese chat rooms with ‘web spies’ whose chief purpose was to post anti-China content. The allegations were never substantiated, but they are now a permanent fixture of China’s internet culture, where web spies, or wangte, are imagined to be facing off against the Fifty Cent Party. Whatever the case, there is a very real conviction among party leaders that China is defending itself against hostile ‘external forces’ and that the domestic internet is a critical battleground. In a paper on ‘web commentator teams’ written last year, a Party scholar wrote: ‘In an information society, the internet is an important position in the ideological domain. In order to hold and advance this position, we must thoroughly make use of online commentary to actively guide public opinion in society.’⁴⁶

China’s government has attempted to downplay negative perceptions of Internet censorship. The government portrays Internet monitoring as a part of the state’s paternalistic duty to protect the public from harmful online content. An excellent example comes from the city of Shenzhen, where the Internet Surveillance Division of the Shenzhen Public Security Bureau has created its own cartoon mascots: Jing-Jing, a male police officer, and Cha-Cha, his female counterpart. As one Shenzhen Internet police official described it, “... The [purpose of the] image of Internet Police in the form of a cartoon ... is to let all internet users know that the Internet is not a place beyond [the] law, [and that] the Internet Police will maintain order in all online behaviors.”⁴⁷



Images of “Jing-Jing” and “Cha-Cha” from a Web site of the Chinese Internet police.⁴⁸

The other side of China’s Internet monitoring regime consists of public institutions and private sector companies. In a parallel to how the Chinese government conducts media censorship, private companies and other institutions operating inside China have adopted the use of their own Internet monitors, known colloquially as “big mamas.” A “big mama” monitors the Web page of his or her own company or institution for material that might displease government censors. In this way, companies and institutions protect themselves from official displeasure, and the government enlists the resources of business, educational, and civil society groups to censor themselves.⁴⁹

Despite such extensive monitoring and censorship efforts, the government’s control over the Internet is not absolute. Chinese Internet expert Xiao Qiang called China’s Internet a “contested space,” in which the increasing number of Internet users and the rapidly proliferating number of Web sites complicate attempts to censor it.

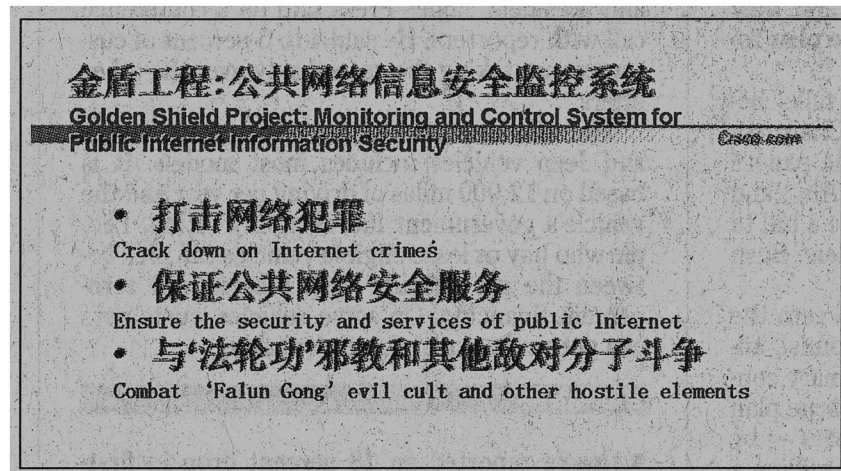
The Involvement of U.S. High-Tech Firms in Supporting the “Golden Shield”

The role played by western high-tech firms in supporting the Internet control regimes of authoritarian governments has been a matter of significant public debate in the United States. All major U.S. Internet service providers and computer hardware manufacturers operating in China have made accommodations with the government’s Internet monitoring regime, although the character and the extent of that involvement differ from firm to firm.

The actions of Cisco Corporation, which sold the Chinese government the switches and routers that now are cornerstones of the Golden Shield monitoring project, have been included among these controversial actions.⁵⁰ Cisco’s role was highlighted in a May 2008

public hearing of the Senate Judiciary Committee's Subcommittee on Human Rights and the Law, where a senior Cisco official was questioned on the nature of the company's support for the Golden Shield. In particular, this official was challenged regarding an internal 2002 Cisco marketing presentation that contained statements appearing to support Chinese government censorship practices as well as derogatory comments about the "evil cult" Falun Gong. Cisco officials repeatedly and consistently have denied any responsibility for facilitating Chinese government Internet control or tailoring their products to any Chinese government specifications and have stated that they bear no responsibility for the ways in which a customer might decide to use their products.⁵¹ Cisco officials have downplayed the 2002 marketing presentation as a briefing prepared only for internal use among Cisco's Chinese employees and have stated that "It has nothing to do with Cisco's objectivity and Cisco's technologies. We are very much for freedom of expression."⁵²

2002 Cisco Marketing Presentation



Reproduction of a PowerPoint slide contained in a 2002 Cisco marketing presentation.⁵³ It was obtained by a Congressional Committee. Cisco says it was not intended as a marketing tool.

Yahoo! came under public criticism and Congressional scrutiny after it was revealed that Yahoo! subsidiaries operating in China had turned over information that allowed Chinese authorities to track down online dissidents.⁵⁴ Yahoo! has continued to assert that certain compromises are necessary in order to receive and maintain market access in countries such as China. It also has maintained that widening access to the Internet in these countries, even if subject to restrictions, inevitably will have a positive effect on information access. Such statements have been echoed by officials from Google, who have noted how services such as YouTube transmit information out of closed societies, even as the company has acknowledged filtering out "sensitive" material from its Chinese-language search engine at the request of the Chinese government.⁵⁵

Legislation was introduced during the 110th Congress to bar U.S. companies from disclosing personally identifiable information about Internet users to a foreign government except for “legitimate foreign law enforcement purposes” as defined by the U.S. Department of Justice. The bill also would have prohibited U.S.-based Internet service providers operating in other countries from blocking online content from U.S. government or government-financed Web sites, and required them to disclose the search terms and material that they filter out.⁵⁶ In July 2008, similar legislation was introduced in the European parliament.⁵⁷ As this Report is submitted, neither bill has been enacted into law.

Internet Control in Response to the Olympics

In the lead-up to the Beijing Olympics, Chinese officials made repeated pledges of greater Internet access during the games and in the period preceding them. One such set of comments was offered at an April 2008 press conference by Sun Weijia, the media operations director for the games, who stated that “There will be no censorship; we have no restrictions on access to the internet for accredited media during the games.”⁵⁸ Other statements seemed to promise less restricted access for foreign visitors but not for Chinese citizens.

Examining this issue, journalist James Fallows has described efforts by Chinese authorities to create a sort of parallel “Potemkin Village” Internet for foreigners in China. He asserts that certain Internet cafes, hotel rooms, and conference centers have freer access than that available to ordinary Chinese citizens.⁵⁹ Such a system allows the government to cultivate a better image in the eyes of visiting foreigners while limiting the potentially subversive effects of uncontrolled Internet access among the Chinese population. Dr. Kluver told the Commission at its June 2008 hearing that the Chinese government pledged greater Internet freedom during the Olympics with no intent to extend such access to China’s own citizens.⁶⁰

China’s government also has reneged on some of its pledges of greater Internet access for foreign visitors. Immediately prior to the Olympics, and in response to statements from the International Olympic Committee that continued Internet restrictions “would reflect very poorly” on the host country, China lifted restrictions on certain Web sites, including the English—although not the Chinese—version of Wikipedia. However, while Wikipedia articles on innocuous topics were accessible, entries on sensitive topics such as Tibet and Tiananmen remained blocked.⁶¹ In late July, journalists in Beijing’s Olympic press facilities reported some sites being alternately blocked and then unblocked following complaints to the authorities.⁶²

Behind the scenes, Chinese security officials have conducted an ambitious program to monitor the Internet activities of guests staying in hotels and guesthouses in large sections of the country. Throughout the second half of 2007 and the spring of 2008, Ministry of Public Security offices in southern and eastern China distributed notices to hotels and guesthouses instructing them to install Internet surveillance systems on their guest computers. These systems are intended to record the usernames, log-in/log-off times,

dial-up numbers, and account information of users and the Internet addresses, domain names, and registration information of Web sites accessed; to filter out “illegal information”; and to send the data collected to centers run by security officials.⁶³ One directive from the Shanghai Public Security Bureau said that failure to comply by the stated deadline could result in “... up to RMB 5,000 [approximately \$732] penalty by the responsible individual or RMB 15,000 [approximately \$2,196] by the organization and that cases of serious violation would result in suspension of Internet access or business license cancellation.”⁶⁴

The Role of Information Control in Ethnic Unrest and Chinese Nationalism

In the wake of the Tiananmen Massacre of 1989, the CCP began seeking a means to restore the party’s tattered legitimacy. As a central component of this effort, the CCP adopted the propagation of nationalist narratives for the purpose of domestic political mobilization. A key feature of this is the glorification of a powerful, centralized state:

*In the wake of the Tiananmen crackdown in 1989, the Jiang Zemin government began to compensate for the bankruptcy of communism by propping up nationalism as a new form of ideological legitimacy. Expansionist emperors were promoted as historical heroes to instill national pride. ... Qin’s First Emperor [was glorified] as a great hero who unified China, despite ... negative assessment[s] of his tyranny. ...*⁶⁵

One facet of this effort to harness Chinese nationalism to re-legitimize the CCP is the government’s program of nationalist education and propaganda, known variously as the Patriotic Education Campaign or the Socialist Spiritual Civilization Campaign. The essential characteristics of this program are presented in a document titled the *Outline for Practical Patriotic Education*. The *Outline* explicitly links Chinese nationalism to the CCP, making it clear that “patriotic education” should conflate Chinese patriotism with support for the CCP:

*We must foster education about the long history of the Chinese nationality. ... Through education in Chinese history, especially modern and contemporary history, people should understand how the Chinese nationality developed, how it made great efforts to strengthen itself, remaining indomitable. ... People should understand ... the great spirit of achievement shown by the Chinese people as they opposed foreign aggression and oppression and as they resisted corrupt rulers and fought bloody wars again and again for national independence and national liberation. Particularly, people should understand the great spirit and accomplishments of the Chinese Communist Party, how it led all the people of the entire nation in the fight to establish a new China. [emphasis added]*⁶⁶

In addition to promoting a powerful and centralized state run by the Communist Party, the curriculum of patriotic education blots out those elements of PRC history that embarrass the party. For example, students in Chinese schools may learn nothing about the protest movement of 1989 or the means by which the government crushed it. If the Tiananmen Massacre is addressed at all in Chinese schools, it is taught as an incident in which a handful of People's Liberation Army (PLA) soldiers lost their lives suppressing a dangerous mob.⁶⁷ In June 2007, editors of a Chengdu newspaper were fired after the paper ran a small ad honoring the mothers of those killed on June 4, 1989. A junior clerk had approved the ad, not realizing its political significance because she did not know the significance of the date; the person placing the ad reportedly told her that it was the date of a mining accident.⁶⁸

PRC government propaganda directed at China's own citizens consistently describes the United States as a bullying and hegemonic power intent on blocking China's peaceful emergence as a prosperous and influential nation.⁶⁹ As Professor Jiao, the Chinese Propaganda Department critic, has stated, "Anything that the Central Propaganda Department touches about the United States is always hostile."⁷⁰ The impact that a steady drumbeat of this sort of propaganda can have on China's relations with other countries was dramatically displayed in spring 2008 when western criticisms of the Chinese government's crackdown on Tibetan unrest collided with the worldwide tour of the Olympic torch. This produced both pro-Tibetan protests and parallel counterprotests by Chinese residents in western countries and South Korea, as well as an angry nationalist backlash within China itself. Aside from Chinese government efforts to downplay the crackdown and to play up instances of alleged western media bias,⁷¹ Chinese officials repeatedly have accused "anti-China forces" within the "Dalai Clique" and elsewhere of fomenting the violence in Tibet with the intent of embarrassing China during its moment of Olympic glory.⁷²

The government has sought actively to propagate a narrative that the 2008 Tibetan violence was fomented by agents of the Dalai Lama, caught innocent and law-abiding Tibetans and Han Chinese alike in the crossfire, and prompted a very restrained and professional response from Chinese security forces.⁷³ The Chinese government has clamped down aggressively on information coming out of Tibet in order to staunch any contrasting narrative. It imposed a ban on the travel of foreign journalists into large areas of western China; confiscated cameras and communications equipment from monasteries, universities, and private citizens in the affected regions; disconnected both land-line phones and cell phone towers in many areas; and has actively monitored remaining telephone communications, which may be disconnected if protests are mentioned.⁷⁴

However, angry Chinese nationalism aroused by issues like the Tibet protests should not be viewed as entirely the result of government control of information. In testimony before the Commission this year, Peter Gries, director of the Institute for U.S.-China Issues at the University of Oklahoma, and Perry Link, professor of East Asian Studies at Princeton University, both agreed that popular Chinese nationalism sometimes is a spontaneously occurring

phenomenon encouraged and exploited by the government rather than an artificial construct wholly engendered by propaganda.⁷⁵ Other observers who have studied the issue of Chinese nationalism also have commented that it has deep popular resonance within large sectors of the Chinese population and that most Han Chinese appear to have little sympathy for the grievances of either Tibetans or other ethnic minorities,⁷⁶ thereby making them inclined to accept government narratives on these issues.

Whether engineered by the government or emerging spontaneously, public discourse on issues regarding the United States and other western countries often is characterized by crude nationalist narratives tinged by xenophobia and paranoia. Representative articles from PRC political science journals have described a “U.S. dream of global hegemony” intent on dominating all the Eurasian landmass, including China.⁷⁷ An article posted in June on a Web site of the state news agency Xinhua contained allegations that U.S. and European officials were the secret puppetmasters behind an active conspiracy to stir up the Tibetan unrest in March 2008 and identified by name U.S. Undersecretary of State for Democracy and Global Affairs Paula Dobriansky as one of the conspirators who had “been directing the worldwide Tibet actions from their Washington headquarters.”⁷⁸ Some recent discussion in the Chinese media insinuated that the global financial crisis in 2008 was the result of a secret plot by American elites: in an October 2008 article from the *Global Times* titled “Is the Financial Crisis an American Conspiracy?” the author indicates that the probable answer is yes and that “This is a serious question worthy of deep examination.”⁷⁹

Such discourse often gives Chinese citizens distorted views of the United States and other nations, generates undue distrust regarding U.S. intentions toward China, and injures efforts to build more productive relations between the two countries. As Dr. Gries noted, the need to appear responsive to angry popular nationalist reactions also could lead the Chinese government to make foreign policy decisions that run contrary to the longer-term interests of both China and other nations. As the best means of dealing with this phenomenon, Dr. Link recommended continued engagement with the Chinese government and public, addressing issues of concern in a straightforward, respectful, and dignified fashion without being indulgent of Chinese expressions of nationalist resentment.⁸⁰

Debates Surrounding Information Control as a Trade Issue

During 2008, the Commission considered the question of whether restrictions on particular categories of information legitimately could be considered a violation of the Chinese government’s obligations as a member of the World Trade Organization (WTO). The debate on this topic centers primarily on two issues: first, whether the Chinese government’s rules governing financial services information constitute a WTO violation; and second, whether restrictions on Internet content disadvantage foreign companies and thereby violate the provisions of the WTO treaty.

Chinese Government Restrictions on Financial Services Information as a WTO Issue

In September 2006, the Chinese government promulgated regulations stating that foreign firms that deal in financial services sector information may neither distribute information directly to nor solicit Chinese customers. Instead, they must conduct such business through the China Economic Information Service, a commercial enterprise subsidiary of the Xinhua state news agency. In effect, this means that foreign firms that deal in stock prices and other financial services information (e.g., Dow Jones, Reuters, and Bloomberg) may do so in China only by working through a Chinese competitor. Further, they are required to submit financial information to Xinhua prior to its release and to provide to the Foreign Information Administration Center—a regulatory body that also is a subordinate entity of Xinhua—information on their services, customers, and foreign suppliers.⁸¹

Such an arrangement allows Xinhua to control the dissemination of financial services sector information that the Chinese government believes might threaten either “social stability” or the business interests of well-connected people, such as negative assessments of the financial health of certain enterprises that could generate bad publicity or negatively impact stock prices. It also poses a formidable competitive barrier to foreign firms dealing in financial services information and forces them to hand over proprietary information critical to their competitiveness. In March 2008, representatives of the United States and the European Union filed a “request for consultation” within the WTO framework, claiming that these practices constitute a violation of China’s commitments as a WTO signatory. In June 2008, the Canadian government also submitted a complaint on the same grounds.⁸² In the wake of the initial complaints, the Chinese government issued a statement saying it would comply with WTO dispute resolution rules, but the matter remains unresolved.⁸³

Legal experts consulted by the Commission this year agreed that the efforts of the Chinese government to control financial services sector information do violate its WTO commitments. Gilbert Kaplan, an attorney with the law firm of King & Spalding LLP, testified that China’s regulations clearly violate China’s signatory obligations not to discriminate against foreign firms in favor of domestic ones. He pointed out that China agreed to separate the regulatory authorities for financial information services from the service suppliers they regulate but has not done so. He stated that these regulations also violate the “acquired rights commitments” in China’s WTO accession agreement that prohibit making the conditions on a foreign firm’s operations more restrictive than they were at the time of WTO accession. He further asserted that the restrictions placed on the ability of foreign financial services firms to gather information about Chinese firms and market conditions also constitutes a WTO violation.⁸⁴

Kevin Dempsey, an attorney with the law firm of Dewey and LeBoeuf LLP, told Commission staff members in August 2008 that he agreed with most of Mr. Kaplan’s views on this issue. He also acknowledged the difficulty of separating regulatory and political interests in China, stating that “I have yet to see a truly inde-

pendent regulator” in China. He said these regulations likely had been enacted in order to secure greater market share for Xinhua and its subsidiaries at the expense of foreign-based competitors. Mr. Dempsey did not agree, however, with Mr. Kaplan’s opinion on the specific assertion that restrictions on the ability of foreign financial services firms to gather information about Chinese firms and market conditions constitute a WTO violation, noting that the PRC had not committed itself to WTO provisions to this effect.⁸⁵

The Chinese Government’s Internet Control Regime as a Potential WTO Issue

Another major issue pertaining to information control and China’s WTO commitments that was considered by the Commission this year is the question of whether Chinese government restrictions on publicly available information, and particularly on Internet access, could be considered WTO violations. This question emerged as a public policy issue in February 2008, when the European parliament passed a proposal to treat Internet censorship as a trade barrier. This proposal now awaits action by the European Council. If the council adopts it, the European Union will have to classify Internet censorship as a trade barrier and raise that issue in trade negotiations.⁸⁶ One group in the United States that advocates such a position is the California First Amendment Coalition (hereafter “California Coalition”). It is pressing the U.S. Trade Representative (USTR) to challenge China’s Internet filtering policies under the auspices of the WTO.⁸⁷ One team of authors expressed the crux of this argument as follows:

[The U.S. government] should explore attacking censorship as a barrier to trade. Chinese censorship of foreign-source internet content has often resembled antitrade tactics. When Chinese surfers have attempted to reach certain foreign sites, censorship software has slowed their access. Chinese users have shifted to faster China-based sites, operated largely by companies that are more willing than their U.S. counterparts to censor. ... A restriction on trade—here the trade in information—puts foreign companies at a disadvantage, which is prohibited by trade agreements.⁸⁸

Speaking on behalf of the California Coalition, Mr. Kaplan testified before the Commission in support of this idea, noting the following as examples of the ways in which the Chinese government’s Internet control regime interferes in free trade:

- Web sites lose advertising revenue when they are blocked.
- Traffic intended for blocked sites is redirected to the Web sites of domestic Chinese competitors.
- Potential business is lost when foreign-based commercial Web sites operating outside the government’s firewall are filtered and thereby operate more slowly than domestic Chinese competitors inside the firewall.

Mr. Kaplan also stated that the slower operation of Web sites could put pressure on U.S. tech firms to relocate services to China, noting that “Google ... has stated that one of the most important considerations driving its decision to relocate its Chinese language

search engine and the servers supporting it from the U.S. to China was the need to overcome the performance deficit caused by the firewall.”⁸⁹

Mr. Kaplan also testified to a number of specific points related to articles of the General Agreement on Trade and Tariffs (GATT) and General Agreement on Trade in Services (GATS). The underlying foundation of his arguments was that such effects of censorship violate GATT article III:4, the “national treatment provision,” which states that governments may not treat products supplied from outside the country less favorably than products produced by domestic suppliers; and GATS article III:1, which calls for transparency in the application of any barriers on the entry of services into a member country.⁹⁰

U.S. tech firms generally have been circumspect regarding public comment on such arguments or initiatives. Although Google’s deputy general counsel and Yahoo! News’ vice president and editor in chief both sit on the board of the California Coalition, neither company has taken a position on the coalition’s petition to the U.S. Trade Representative.⁹¹ Representatives of U.S. tech firms have tended instead publicly to support the creation of a voluntary industry code of conduct to deal with ethical issues raised by cooperation with Internet control regimes.⁹² In early August 2008, representatives of Google, Microsoft, and Yahoo! wrote letters to the chairman and ranking member of the Senate Judiciary Committee’s Subcommittee on Human Rights and the Law, informing them that these companies had reached agreement on a general set of principles for such a voluntary code of conduct, to be titled the “ICT [Internet, communications, and technology] Initiative on Freedom of Expression and Privacy.” The letters stated that the three companies were working out the details, implementation guidelines, and accountability framework of the agreement, with plans to unveil the initiative sometime in the autumn of 2008.⁹³

However, arguments such as those of the California Coalition, while popular among many human rights and free speech advocates, have met with skepticism among those who more narrowly interpret the provisions of the WTO treaty. Eric Altbach, a former deputy assistant U.S. Trade Representative for China, has stated that “a case primarily focused on China’s content review would be extremely unlikely to succeed at the WTO. As a general matter, USTR looks very closely at the merits of any potential WTO case, and is extremely resistant to moving forward without a strong legal basis. ... Attempts to address other kinds of [non-trade] political issues would put additional strain on the WTO at a time when its legitimacy has been weakened by the collapse of the Doha round, and could threaten to undermine its ability to enforce trade rules.”⁹⁴

In his interview with the Commission, Mr. Dempsey stated that Mr. Kaplan had asserted overly broad WTO principles in support of his arguments and offered his own view that it is necessary to examine the specific, item-by-item GATS commitments of each WTO signatory country. Mr. Dempsey pointed out that China’s WTO accession agreement had not committed the PRC to many of the articles related to information and entertainment services; for example, it had not made commitments to grant access to foreign

news agencies and therefore could restrict their access and operations in China with impunity. Mr. Dempsey said that Mr. Kaplan's general arguments regarding WTO guarantees of open market access for foreign firms ran afoul of many of these specific provisions. Mr. Dempsey did express agreement, however, with Mr. Kaplan's assertion that the lack of transparent regulation of Internet services could constitute a WTO violation, as GATS is explicit in demanding that regulations and obligations pertaining to commercial transactions be clearly publicized.

These consultations, and additional research performed by Commission staff, indicate that when China became a signatory to the GATT/GATS provisions within the WTO framework, it carefully avoided formal commitments in many of the service areas related to news, information, and entertainment—all areas traditionally falling within the cognizance of the Propaganda Department and its prerogatives to shape what China's citizens have a right to know. The PRC also structured the agreements in such a way that foreign firms dealing in information services would be forced to work through joint ventures in which they could not have a controlling interest, thereby reducing their ability to function independent of Chinese state influence.⁹⁵

WTO Provisions on Public Morals, Public Order, and National Security

Another issue raised by the Commission's research pertains to public morals and public order clauses within the GATT/GATS framework. Mr. Dempsey noted that GATT provides a national security exception to trade in certain goods, as well as a similar provision for the protection of public morals.⁹⁶ Where services are concerned, GATS article XIV contains a security exception for trade in information as well as exception clauses for public morals and public order: "... [N]othing in this agreement shall be construed to prevent the adoption or enforcement by any Member of measures ... necessary to protect public morals or to maintain public order." Additionally, article XIV *bis* contains a security exceptions clause: "Nothing in this agreement shall be construed ... to require any Member to furnish any information, the disclosure of which it considers contrary to its essential security interests."⁹⁷

If challenged on issues pertaining to information control and WTO commitments, China's government may be able to invoke these public morals, public order, and national security clauses of GATS. Mr. Dempsey indicated that the public morals clause had been invoked in previous WTO disputes, including one involving the United States.⁹⁸ However, he said that to the best of his knowledge, the public order and security clauses of GATS have not yet been invoked or challenged in the context of WTO disputation and that any such actions would be legal terra incognita.

Conclusions

- The Chinese government has created an information control regime intended to regulate nearly every venue that might transmit information to China's citizens: the print and broadcast

media, the Internet, popular entertainment, cultural activities, and education.

- The Central Propaganda Department and its subordinate regional bodies exercise extensive authority over the hiring and firing of personnel in the media, educational, and entertainment sectors.
- Personnel working in the media, educational, and cultural fields have been conditioned into self-censorship by the rewards and punishments of China's information control system and also face possible fines, demotion, termination of employment, and even prison for publishing information contrary to the party's preferred narratives.
- The Chinese government did not fully honor promises of greater media freedom that it made in conjunction with its bid to host the 2008 Olympic Games. Those promises now appear to have been tactical moves intended to smooth the way for the games rather than serious statements of policy intent. There were limited improvements in the latitude granted to foreign journalists, particularly in terms of travel rights within the country. However, many western journalists, particularly those from the United States and the United Kingdom, remained subject to government scrutiny and to opaque regulations restricting their activities.
- The Chinese government has established an extensive physical infrastructure to screen and monitor information on the Internet. An Internet police force of large but indeterminate size monitors and censors information on the Internet.
- The propaganda system's central purpose is to perpetuate the political authority of the Chinese Communist Party by concealing negative information about the party and its history and by propagating narratives intended to bolster the party's authoritarian rule. The propaganda system also actively seeks to inflame Chinese nationalism in order to co-opt nationalist sentiment as a means of legitimizing the party's authority.
- The U.S. government takes the position that current Chinese government regulations requiring all financial services companies to operate through a subsidiary of the Xinhua news agency, and similar regulations that make a Xinhua subsidiary a regulator of all financial services information, violate China's signatory commitments to the WTO.

RECOMMENDATIONS

- The Commission recommends that Congress carefully examine any agreement involving Internet service providers that addresses pressures from the Chinese government to provide personally identifiable information about Internet users and that Congress periodically review the effectiveness of such agreements.
- The Commission recommends that Congress investigate the possibility that Chinese government press and Internet censorship violates China's obligations as a member of the World Trade Organization.

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96. Kevin Dempsey, Esq., telephone interview with Commission staff, August 6, 2008.

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98. These articles, however, are still subject to the "national treatment" clause, meaning that if applied, they must apply to both foreign and domestic firms. As an example, Mr. Dempsey cited a 2005 WTO appellate body ruling, in which U.S. prohibitions against Internet gambling services were challenged. The United States had invoked the public morals clause of GATS, but Antigua (where many online casinos are based) challenged the U.S. position on the grounds that Internet betting on horse racing was still legal in some states within the United States. The WTO appellate body found in Antigua's favor, on the grounds that allowing U.S. domestic firms to manage Internet betting, while simultaneously prohibiting foreign-managed Internet gambling services, violated the national treatment principle.

CHAPTER 6

CHINA'S COMPLIANCE WITH AGREEMENTS PERTAINING TO ITS EXPORT TO THE UNITED STATES OF PRISON LABOR PRODUCTS

“The Commission shall investigate and report exclusively on—

...

“UNITED STATES–CHINA BILATERAL PROGRAMS—Science and technology programs, the degree of non-compliance by the People’s Republic of China with agreements between the United States and the People’s Republic of China on prison labor imports and intellectual property rights, and United States enforcement policies with respect to such agreements. ...”

The Political and Economic Role of China’s Prison System

The Background of the Prison Labor System

Contemporary prison labor in China is a legacy of the “reform by labor” or “*laogai*” system that was created with assistance from the Soviet Union after the Chinese Communist Party (CCP) successfully defeated the Nationalists on the mainland in 1949. It was modeled after the Soviet gulags, intended to punish those identified as opponents of the Communist regime. It also was based on Mao Zedong’s premise that, through labor, opponents of Communism could be transformed into “new socialist beings.”¹ Throughout Mao’s rule, and in particular during repressive mass campaigns such as the 1957 Anti-Rightist Campaign and the 1966–1976 Cultural Revolution, those accused of being on the wrong side of prevailing political currents were subject to imprisonment with heavy labor, with the purported intent of reforming their corrupted thinking.

Although the prison camp system has served an obvious purpose as a tool of harsh repression against the enemies of the CCP—either real or imagined—party leaders likely believe at least some of their own propaganda surrounding the reformatory nature of the forced labor system. The element of forced manual labor as a tool of thought reform has been deeply ingrained in the political culture of the CCP throughout its history, as seen in practices such as the mass deportation of young people and intellectuals to the countryside to “learn from the peasants” during the Cultural Revolution. The clearest expression of this impulse may best be seen today in

China's prison labor system, where prisoners are still exposed to a physically and psychologically exhausting regimen of physical labor and political propaganda sessions, backed by the threat of harsher punishment and even physical violence for those prisoners who fail to adapt themselves readily to efforts at "thought reform."²

Definitions of "Prison Labor" vs. "Forced Labor"

Part of the Commission's legislative mandate is to investigate and report on the state of compliance "by the People's Republic of China with agreements between the United States and the People's Republic of China on prison labor imports." However, China employs a system of multiple classifications for forced labor detention facilities, not all of which are officially classified as "prison" facilities by the Chinese government. The Commission believes that issues related to "prison labor" must be considered within the broader context of government-administered facilities in China in which detainees perform forced labor under penal conditions, regardless of whether such facilities are officially designated as "prisons" by the Chinese government. Therefore, the Commission has adopted this broader interpretation of *forced labor under penal conditions* as equating to "prison labor" for its consideration of issues related to alleged prison labor imports into the United States.

Its twin political purposes of repression and "reform" aside, the *laogai* system also has performed a significant economic role throughout the history of the People's Republic. This role was openly discussed by early CCP leaders, who espoused forced prison labor as a natural means of extracting economic advantage from those class enemies subject to the "dictatorship of the proletariat." In 1951, the *Renmin Ribao* (People's Daily) editorialized that "Looking at it from a political perspective, these counter-revolutionary criminals, if not executed right off, are a source of labor, and if we organize them and force them into the service of the nation ... they will have a definite effect on national development."³ Continuing with this idea, in 1954 Luo Ruiqing, the head of the Ministry of Public Security, stated in a speech that

*... the process of reform through labor of criminals ... is essentially an effective method of purging and eliminating all criminals. Labor reform production ... directly aids in the development of the nation's industries, and also saves the nation a great deal in expenses. It is a dependable source of wealth. ...*⁴

These intertwined political and economic goals served as the ideological foundation for the creation of a vast network of prison camps throughout China in which material production occupied a central role as both a symbol of "reformed" prisoner thinking and a significant economic contribution toward building a "new socialist society." This economic role of the camps was directly incorporated in the centralized economic planning of the Communist regime.⁵ The proliferating system of prison labor camps also served to pro-

vide cheap corvée⁶ labor for many of the public works and other social engineering projects of the CCP, particularly in less settled and more inhospitable interior and frontier areas such as Qinghai, Gansu, Guizhou, and Xinjiang provinces.⁷

Although the CCP initiated an ambitious program of economic reform under the leadership of Deng Xiaoping in the late 1970s, Deng continued to use the network of forced labor camps to suppress political opposition.⁸ The continuing dual political and economic role of the prison labor system in the Deng era was expressed in a 1988 Chinese government document that stated

*The nature of our [laogai] facilities, which are a tool of the people's democratic dictatorship for punishing and reforming criminals, is inevitably determined by the nature of our socialist state, which exercises 'The People's Democratic Dictatorship.' The fundamental task of our [laogai] facilities is punishing and reforming criminals. To define their functions concretely, they fulfill tasks in the following three fields: 1. Punishing criminals and putting them under surveillance. 2. Reforming criminals. 3. Organizing criminals in labor and production, thus creating wealth for society. Our [laogai] facilities are both facilities of dictatorship and special enterprises.*⁹

Furthermore, despite the traditional *laogai* slogan of "reform first, production second,"¹⁰ in the decades immediately following Deng's economic reforms, prison labor became a significant source of Chinese manufactured goods. The economic reform process provided further impetus for prison labor production as individual institutions of the penal system were given greater responsibility for being financially self-sufficient, with reduced or eliminated allocations from the central government.¹¹ This process paralleled similar pressures in the same period upon other institutions of the party-state such as the People's Liberation Army, in which military units suddenly made responsible for economic self-sufficiency launched themselves into a wide array of commercial ventures.¹²

As a result, administrators of *laogai* camps and other units within the penal system were faced with both new incentives and new opportunities to use their facilities to produce goods that could be sold at a profit. Rampant corruption among local-level CCP officials and the collusion of these officials with business interests have accelerated this trend in recent years to the extent that, as described by The Laogai Research Foundation, a nonprofit organization headed by a former *laogai* prisoner that conducts research on the Chinese prison labor system, "... *Laogai* enterprises in certain regions ... have developed into small economic empires. These camps produce hundreds of millions of yuan in profit and pay millions in taxes. The international community and even the ordinary Chinese citizen is completely unaware of how the economic function of the *laogai* often supersedes the legal purpose."¹³

Classifications of Prisoners within the Chinese Prison Labor System

There are three broad classifications in China for prisoners sentenced to forced labor under penal conditions. In its original and

most literal sense, the term *laogai* referred to the punishment meted out to those prisoners who had been arrested and formally sentenced to reform through manual labor in a prison factory, farm, or other such production facility.¹⁴ In 1994, the Chinese government formally dropped usage of this term in favor of the word for “prison,”¹⁵ possibly in response to negative connotations that had come to be associated with the term *laogai* in the international arena.¹⁶

A second category, “reeducation through labor,”¹⁷ refers to the sanctions regime meted out to offenders judged to be guilty of crimes of a less serious nature. Sentencing to “reeducation through labor” does not require any formal judicial proceedings; rather, police or courts can sentence a prisoner arbitrarily to up to three years of “reeducation through labor” without the need for a trial.¹⁸ A third category, “forced job placement,”¹⁹ applies to prisoners who have completed their terms of sentencing but still may be kept confined within the same facility under prison labor conditions as a post-sentence “work assignment.”²⁰ While “forced job placement” prisoners have some greater privileges as compared to other prisoners, they still are kept confined within prison facilities under restricted conditions and may be mixed together with other prisoners without noteworthy distinction of status.²¹ The practice of “forced job placement” has been decreased in recent years but has not been completely abolished.²² Irrespective of such formal administrative classifications, however, *laogai* remains a commonly used term to refer to the prison labor system as a whole.

The composition of the prisoner population within the *laogai* system also has changed over time. While political prisoners composed a large part of China’s prison population during the earlier years of the People’s Republic—particularly following the mass arrests of Mao’s political campaigns—the ratio of political prisoners to ordinary criminal offenders has diminished over time. One estimate from the early 1990s assessed that political prisoners composed roughly 10 percent of the population of the *laogai* system.²³ Another more recent estimate has asserted that the crackdown on Falun Gong from 1999 to the present has produced a “reeducation through labor” prison population in which 15 percent of the inmates were practitioners of Falun Gong,²⁴ although such estimates are difficult to verify independently.

The Extent of the Chinese Forced Labor System Today

Accurate information on the size of the Chinese forced labor system, the scope of its economic production, and the demographic composition of its prisoner population is difficult to obtain from official sources. The Chinese government classifies such information related to the prison system as a state secret.²⁵ Furthermore, the decentralized nature of contemporary management of prisons and prison economic production—in which local and provincial officials bear primary responsibility for these facilities and processes—means that national-level officials themselves may not have a consistently accurate picture of the extent of economic production in the prison labor system.

As stated in one recent diplomatic cable from the U.S. embassy in Beijing, “information about forced and child labor in China,

'based on reliable, sound research methodologies,' ... is simply not available. ... In the absence of current official data, or even reliable unofficial data, we cannot quantify the scale of the problem."²⁶ This same cable specifically identifies artificial flowers, Christmas lights, shoes, garments, and umbrellas as products allegedly produced in prison factories for middlemen companies that subsequently would market them with the presumed possibility of export.²⁷ Similarly, a 2005 report by a U.S. government interagency task force noted that "While the volume of prison-made goods entering the U.S. market is believed to be a very small percentage of total U.S. trade with the PRC, more ... enforcement actions involving prison or forced labor facilities have been issued for the PRC than for any other country."²⁸ Testimony presented to the Commission this year indicated that U.S. Immigration and Customs Enforcement (ICE), an agency of the Department of Homeland Security that has the lead within the U.S. government for investigating prison labor cases, maintains no central database of prison facilities that allegedly produce goods for export to the United States. Amid other competing priorities—including money laundering, human trafficking, and illicit weapons sales—ICE has not made Chinese prison labor a high-priority issue.²⁹

Some of the most detailed information regarding prison labor production in China is published in the most recent *Laogai Handbook* of The Laogai Research Foundation. This report includes the list of detention orders issued for Chinese prison-made products in the 1991–1996 time frame by the U.S. Customs Service (the predecessor organization to U.S. Customs and Border Protection [CBP] that was made an agency of the Department of Homeland Security upon its establishment in 2003).³⁰ However, the handbook notes that gathering information on prison labor products exported to the United States became more difficult after 1995 due to deteriorating Chinese government cooperation with U.S. officials, thereby making accurate information harder to obtain.³¹ A more recent report from The Laogai Research Foundation employed information from the Dun & Bradstreet commercial database to identify Chinese prison manufacturing facilities that are dual-hatted as commercial enterprises.³² By searching in the database for the names and addresses of previously identified *laogai* facilities, researchers at The Laogai Research Foundation found Dun & Bradstreet entries for 314 prison facilities, suggesting the involvement of these facilities in ongoing commercial activity.³³ This study is not exhaustive, however, as it identifies prison enterprises based only on their addresses or based on their use of the word "prison" in their names. It is a distinct possibility that even more prison enterprises are involved in international trade but are not explicitly identified as prison enterprises by Dun & Bradstreet. This research methodology also could not identify front companies or middlemen that may obtain products from prison labor that subsequently are marketed under the names of those companies or middlemen.

Much of what is known publicly about alleged specific instances of prison labor exports to the United States comes from individuals in the private sector and nongovernmental organizations. For example, in testimony presented to the Congressional-Executive Commission on China in 2005, Gregory Xu, who has researched the

treatment of Falun Gong practitioners in Chinese government custody, described the case of Charles Lee, a Falun Gong practitioner and U.S. citizen of Chinese heritage. According to Mr. Xu's statement, Mr. Lee was arrested by Chinese authorities, confined in a prison labor facility, and forced along with other prisoners to spend long hours making Christmas lights intended for export to the U.S. retail market.³⁴ The allegation of Chinese prison factories producing Christmas lights also is mentioned in a U.S. embassy Beijing cable from May 2008.³⁵

In a similar vein, representatives of Falun Gong abroad have made the specific accusation that Henan Rebecca Hair Products, a company that exports wigs to the United States and Europe, employs "slave" labor from prisoners at the Henan Province No. 3 Labor Camp and the Shibalihe Female Labor Camp in Zhengzhou City, Henan Province. One such source quotes a guard from the No. 3 Labor Camp as stating, "A while back, when the labour camp was short of funding and was about to be shut down, many Falun Gong practitioners were relocated there to compensate. The government allocated 20,000 RMB [approximately \$2,934]³⁶ to 'reform' each practitioner." This source further alleges that Falun Gong practitioners were "purchased" at 800 RMB apiece from other correctional institutions to serve as forced labor for wig production under a contract with Henan Rebecca, a project that proved very profitable for the camp and its officials.³⁷

Although it is difficult to obtain independent verification of many of these claims, the accumulated weight of such evidence suggests a Chinese forced labor system that is both very large in scale and heavily involved in commercial export activity.

The Legal Framework Relating to China's Prison and Forced Labor Products

U.S. Government Prohibitions on Prison Labor Products

Importing goods into the United States that are the products of prison labor is illegal, according to section 307 of the Tariff Act of 1930 (19 U.S.C. 1307), which explicitly prohibits the importation of "all goods, wares, articles, and merchandise mined, produced, or manufactured wholly or in part in any foreign country by convict labor or/and forced labor or/and indentured labor under penal sanctions."³⁸ Furthermore, section 1761 of title 18 of the U.S. Code makes it a criminal offense knowingly to import goods made by convicts or prison labor. Article 20 of the 1994 General Agreement on Tariffs and Trade (incorporated into the treaty of the World Trade Organization [WTO]), to which the United States is a party, does not ban the export of prison labor products but states that member governments retain the right to restrict imports "relating to the products of prison labour" if they so decide.³⁹

Prison Export Manufacturing in the United States

While the Tariff Act of 1930 bans the importation of prison labor products into the United States, there is no parallel provision in U.S. law that prohibits the export of products made in U.S. prison factory facilities and, indeed, some U.S. prison-made products *are* exported abroad. One example of such a line of products is Prison Blues, a brand of denim clothing manufactured by inmates at the Eastern Oregon Correctional Institution in Pendleton, Oregon. This enterprise is run by a company named Inside Oregon Enterprises, a division of the Oregon Department of Corrections, and was founded as a means of defraying the incarceration costs of inmates in the state of Oregon. The jeans and other denim products of the Prison Blues line are exported to Japan, where their associations with prison and perceived associations with American West Coast gang culture apparently give them a hip cachet among fashion-conscious young Japanese.⁴⁰

The fundamental distinction between such products and those of Chinese prison factories, however, lies in the matter of *forced* labor: U.S. inmates involved in light manufacturing enterprises participate on an entirely voluntary basis and are paid wages (albeit minimal) for their work. Chinese prisoners laboring in *laogai* enterprises, on the other hand, are compelled to work and are exposed to far more inhumane conditions. Furthermore, manufacturing in U.S. prisons does not play the central economic role it plays in *laogai* prison enterprises, where the imperatives of punishment and economic production on behalf of the CCP-controlled state are deep seated and inextricably linked.

U.S.-China Agreements on Prison Labor and Enforcement

In response to U.S. pressure, in 1991 the Chinese government issued a law banning the export of prison labor products. Following this, in August 1992 Chinese Vice Foreign Minister Liu Huaqiu and U.S. Under Secretary of State Arnold Kanter met and signed a “Memorandum of Understanding Between the United States of America and the People’s Republic of China on Prohibiting Import and Export Trade in Prison Labor” (hereafter “MOU”). The 1992 MOU established the following terms:

- Upon the request of one party, the other party will conduct investigations into forced labor allegations on the requesting party’s behalf.
- Upon request, the two parties will exchange information on compliance with labor laws and regulations.
- Upon request, each party will share information on suspected violations of labor laws or regulations.
- Upon request of one party, the other party will facilitate visits of officials from the requesting party to conduct its own investigation into forced labor allegations.⁴¹

While the MOU was intended to clarify operating procedures for investigating—and preventing—cases of prison labor exports, enforcement of the agreement was weak in the years immediately fol-

lowing its signing. According to Jeffrey Bader, the then-deputy assistant secretary of State for East Asian and Pacific Affairs, the Chinese government's implementation of the MOU was "spotty." Chinese officials responded slowly to American requests for information, and when they did respond—generally several months after the requests—the reports were vague and without great detail.⁴²

To seek some resolution of this problem—and to fulfill a "must do" condition for renewing Most Favored Nation trading status for China—the U.S. government sought and successfully negotiated with China a supplementary agreement in March 1994, a Statement of Cooperation that more specifically delineated the procedures each side would follow in implementing the provisions of the MOU. The Statement of Cooperation included the following provisions:

- Each party, after being requested to investigate prison labor allegations by the other party, must issue an investigation report within 60 days of the request.
- If the United States requests an official visit to a suspected facility, the Chinese government will arrange for such a visit within 60 days of the request.
- The U.S. government, after conducting a visit to a suspected facility, will issue an investigation report within 60 days after the visit is completed.
- If the U.S. government is made aware of new information about a suspected facility that already has been visited, the Chinese government will launch a new investigation.
- When the United States is granted permission to visit a suspected Chinese facility, it agrees to provide to Chinese authorities all necessary information, and China will assist the United States in arranging the visit and ensuring access to all necessary materials.
- The two sides agree in principle that a visit to a suspect facility will occur after the visit to the previously listed suspected facility has been completed and a report indicating the results of the visit to the previously listed suspected facility has been submitted.⁴³

At its June 2008 hearing on June 19 to examine China's compliance with the MOU and Statement of Cooperation, the Commission hoped to receive testimony from a representative of the Department of State who could discuss the provisions of both documents and offer an official assessment of Chinese government compliance with them. Regrettably, however, despite multiple invitations made through both formal and informal channels, the State Department declined either to send a witness to the Commission's hearing or to submit a written statement related to these issues.

U.S. Government Procedures for Investigating Prison Labor

Following the creation of the Department of Homeland Security in 2003, the Office of International Affairs of the U.S. Customs Service initially was placed within U.S. Customs and Border Protection. The Office of International Affairs transitioned to Immigration and Customs Enforcement in 2003, although Customs and

Border Protection continued to hold Congressionally allocated funds for forced/child labor investigations through fiscal year 2004. In fiscal year 2005, the funding for such programs was shifted to ICE and controlled by the ICE Office of Investigation, of which the Office of International Affairs had been made a subcomponent. In fiscal year 2006, this funding totaled approximately \$430,000.⁴⁴

In February 2007, the Office of International Affairs became a stand-alone division within ICE and currently bears primary responsibility for investigating alleged cases of prison labor exports to the United States. To pursue prison labor investigations in China, ICE must depend on a total of seven personnel stationed in China—five in Beijing, and two in Guangzhou. According to standard procedure, when ICE receives an allegation of prison labor in China, the ICE attaché in Beijing should open an investigation in accordance with the 1992 MOU and the 1994 Statement of Cooperation. If, based on its investigation, ICE determines that there is sufficient evidence to suggest probable cause that the goods in question are produced with prison labor, ICE may make a finding to that effect. If approved by the secretary of Homeland Security, the finding results in denial of entry into the United States of the merchandise in question. If the investigation yields reasonable but not conclusive evidence of prison labor, ICE may request a detention order from CBP. If approved, such a detention order requires CBP to detain the merchandise for up to three months, during which time the importer may seek to prove that the goods in question were not manufactured with prison labor. In such a situation, the importer may elect instead to reexport the merchandise in question to another country.⁴⁵

The procedures detailed above describe the ideal way in which the system is supposed to work. However, as noted below, in actual practice this process has resulted in only eight approved visits by U.S. officials to suspected prison export manufacturing facilities in the PRC since these agreements were signed, and none since 2005. Further, this process appears to have produced no quantifiable progress in stopping the export of prison labor goods from China to the United States.

Chinese Government Compliance with the Provisions of the Memorandum of Understanding and the Statement of Cooperation

Despite signing the 1992 MOU and 1994 Statement of Cooperation, the Chinese government has displayed no willingness to implement the provisions of these agreements. The inspection aspects of the Statement of Cooperation are completely reliant on the cooperation of Chinese government officials, with U.S. investigators having no real recourse in the face of Chinese government inaction or obstructionism. According to ICE officials, China presents a very difficult operating environment for their work on prison labor issues. ICE officials also have indicated that it is difficult to obtain sufficient evidence to gain approval from the PRC Ministry of Justice to conduct investigations into alleged prison labor facilities.⁴⁶ Following the signing of the 1994 Statement of Cooperation, U.S. officials in Beijing opened 12 cases based on allegations of prison labor exports. From 1996 to 2002, the PRC Ministry of Justice

granted just three of 18 prison site visits requested by the U.S. Customs attaché in Beijing, none of which occurred within the period of 60 days prescribed in the agreements. U.S. officials found no evidence that these particular facilities were producing goods bound for export to the United States.⁴⁷ Five site visits were made between September 2002 and April 2005; each of these visits resulted in that particular case being closed without issuance of any product detention order or formal findings.⁴⁸ The very long delays between U.S. requests for site visits and the small number of visits actually approved suggest the possibility that U.S. officials are granted permission to visit only selected prison labor facilities from which all evidence of export manufacturing has been removed. This points out a fundamental weakness of the investigation and enforcement provisions of the Statement of Cooperation: it is unrealistic to expect the very Chinese government authorities who have control over prison labor facilities to provide to U.S. officials evidence incriminating themselves or the facilities for which they are responsible.

According to testimony presented to the Commission by James Ink, deputy assistant director of the Office of International Affairs at ICE, there remain 13 outstanding requests that date back to 1994 for site visits to suspect facilities.⁴⁹ This represents the failure of Chinese officials to abide by the terms of the Statement of Cooperation and, specifically, by its commitment to respond to visit requests within 60 days. Some human rights observers maintain that China is denying access to these prisons in order to maintain production that has become a vital part of the Chinese economy or because such operations directly benefit influential officials and business interests.⁵⁰ Additionally, China's Ministry of Justice continues to deny access to facilities with respect to which it claims there is "insufficient evidence" of prison labor violations. U.S. officials—as well as representatives of the International Red Cross—remain barred from all "reeducation through labor" sites. The Chinese government maintains that "reeducation through labor" is a nonjudicial, administrative sanction and therefore is not covered by agreements related to prisons.⁵¹ The Chinese government has used this distinction as a major loophole, which leaves large sectors of the Chinese penal system outside the scope of any enforcement provisions of the two agreements. The U.S. government does not concur with the Chinese government's characterization of "reeducation through labor" as distinct from prison incarceration.

U.S. officials describe a state of sporadic contact and cooperation with their Chinese counterparts with whom they must work on prison labor matters. For example, Mr. Ink testified to the Commission that between February and September 2003, PRC Ministry of Justice officials held monthly meetings with ICE attaché personnel to discuss prison labor issues but that these were halted in the wake of the SARS (severe acute respiratory syndrome) outbreak in the autumn of that year. These meetings resumed in 2004, with PRC officials seeking to place other prison-related issues, such as the administration of prisons, on the agenda. These meetings continued through June 2006, when they stopped again. Then they commenced once again in June 2008, but discussion of prison labor facilities was not on the agenda.⁵²

The implementation by the Chinese government of the two agreements appears to have been half-hearted at best and directly obstructive at worst. With U.S. investigation of alleged prison labor cases in China entirely reliant upon Chinese official cooperation, ICE officials have no recourse but to let alleged cases grow cold while they await Chinese actions or permission from Chinese officials to proceed with steps set forth in the agreements.

A Case Study of Alleged Chinese Prison Labor Imports

The Case of Marck & Associates, Inc. v. Photo USA Corporation

In an effort to provide a case study of the alleged import into the United States of Chinese prison-manufactured products and their impact on U.S. businesses, the Commission received testimony and conducted research this year related to certain aspects of an ongoing legal dispute between Gary Marck, president of Marck & Associates, Inc., based in Toledo, Ohio, and James Peng, president of Photo USA Corporation, based in Sunnyvale, California. This Commission takes no position on the ongoing litigation between Mr. Marck and Mr. Peng, makes no judgment regarding the veracity of particular claims by either side, and does not seek to influence the outcome of this litigation in any way. The Commission's sole interest in this case lies in its public policy implications.

Marck & Associates, Inc., and Photo USA Corporation are competitors in the market for drinkware products such as ceramic coffee mugs. Mr. Marck filed a lawsuit against Mr. Peng in the Federal District Court for the Northern District of Ohio alleging, among other unfair business practices, that Mr. Peng was acting as a wholesaler and distributor of coffee mugs made with prison labor in China. The judgment of the court was that Mr. Marck failed to meet the evidentiary burden to establish that Mr. Peng's products were produced by prison labor, but the court issued a judgment against Mr. Peng pertaining to other unfair business practices. This case is currently on appeal.⁵³

The issue in this case pertaining to prison labor is Mr. Marck's assertion that the Shandong Zibo Maolong Ceramic Factory (hereafter "Maolong") is a front company for the Luzhong Prison, located in Shandong Province in northeastern China. According to The Laogai Research Foundation, the Luzhong Prison is a "reeducation through labor" facility that operates a large ceramics factory producing, along with other products, approximately 70 million ceramic pieces each year.⁵⁴ An analysis performed by Mr. Marck's representatives suggests that this factory produces over 50 percent of the ceramic products imported each year into the United States.⁵⁵ Mr. Marck presented to the Commission both eyewitness testimony and photographic evidence that the Maolong facility is located in close proximity to the Luzhong Prison; that the single kiln within the Maolong facility is of insufficient capacity to produce the volume of products marketed by Maolong each year; and that it is, in fact, an inoperative showcase kiln intended to help perpetuate the fiction that Maolong manufactures its own products.⁵⁶

Mr. Marck, who is the partial owner of another ceramics factory (the “Huaguang” factory) also located near the Luzhong Prison, has accused Mr. Peng of purchasing coffee mugs nominally manufactured by Maolong but actually produced by prison labor at Luzhong, thereby enabling Mr. Peng to undercut Mr. Marck’s price for comparable mugs. (Mr. Marck also acknowledged past purchases of mugs manufactured in Luzhong but claimed that he ceased this practice once he learned of their origins.) According to Mr. Marck’s attorney, Daniel Ellis, labor costs constitute 30 percent of the cost of a typical coffee mug in question, and the use of prison labor allows a price differential of approximately 16 cents per mug in comparison to a similar mug produced at a normal Chinese factory. He claims that this price differential has given Photo USA Corporation a decisive competitive advantage in the market for coffee mugs and other similar ceramic drinkware products.⁵⁷

Mr. Marck asserts that importing prison-made coffee mugs not only violated U.S. law but also constituted an unfair trade practice that significantly impacted his own business and forced him to spend considerable time and money pursuing civil litigation. He further asserts that the current state of affairs vis-à-vis U.S. government enforcement of prison labor agreements with China has resulted in a system of perverse incentives in which those businesses that attempt to adhere to U.S. law on prison labor products lose out to competitors who do not.⁵⁸ He also indicated that in August 2006 he made a formal request to U.S. Customs and Border Protection to conduct an investigation of the alleged illegal import into the United States of ceramic products originating at Luzhong and that this had resulted in U.S. Immigration and Customs Enforcement requesting information on this facility from the PRC Ministry of Justice. As of the publication of this Report, no known further action by either the U.S. or the PRC government has resulted.⁵⁹

Mr. Ellis told the Commission that since the start of this litigation, shipments of ceramic products originating at Luzhong have been labeled falsely to disguise their point of origin.⁶⁰ He also subsequently stated that the manufacture of ceramic products at Luzhong recently has decreased or possibly ceased, which he attributed to the unfavorable attention brought to the facility by this case.⁶¹ The Commission saw no direct evidence in support of this statement.

Mr. Peng and his attorney have denied that the coffee mugs sold by his company were manufactured in a prison labor facility and in communications to the Commission stressed that the Federal Court that heard Mr. Marck’s case ruled that Mr. Marck had not met the evidentiary burden necessary to prove his claim that prison labor was used to manufacture mugs marketed by Photo USA Corporation.⁶² However, the court awarded damages to Mr. Marck on the grounds of other unfair trade practices. Photo USA Corporation has appealed the judgment.⁶³

Policy Debates Arising out of the Marck-Photo USA Case

Shifting the Burden of Proof to Importers

In the course of both testimony before the Commission and subsequent communication with the Commission's staff,⁶⁴ Mr. Ellis provided a number of policy recommendations relevant to the issue of prison labor imports. The first of these is that importers should be required to sign a certification that their products are not produced by prison labor, thereby shifting the burden of proof to importers themselves rather than placing it on any third party that might raise challenges regarding the point of origin of the products in question. As described by Mr. Ellis, the evidentiary burden of U.S. courts in such matters—i.e., providing conclusive and documented proof of a direct supply chain between prison factory, U.S. importer/wholesaler, and U.S. retailer—is too high to allow for either effective criminal prosecution or civil litigation. This is especially true with respect to cases originating in China, where U.S. officials must rely on cooperation from Chinese officials and where information about the prison system is classified as a state secret. In a rebuttal to this argument, Emily Wilcheck, attorney for Mr. Peng, stated that the policy Mr. Ellis advocates contains a “guilty until proven innocent” assumption inimical to U.S. law and custom and that such a policy would “assume that all imported products are prison labor goods, simply because of their point of origin, and leaves the importer with the costly task of bearing the burden of proof on that issue.” She further asserted that such a provision would “create a logistical and financial nightmare for [U.S.] Customs [and Border Protection] and importers, and impede the flow of trade between the United States and other countries.”⁶⁵

Detention Orders on Goods from Facilities Not Opened for Inspection within 60 Days

Mr. Ellis also recommended that ICE and CBP more vigorously pursue implementation of the provision of the Statement of Cooperation stating that site visits to suspect facilities will be granted within 60 days of a formal request from ICE to the PRC Ministry of Justice. The best way to achieve this, he argued, is for CBP to issue a detention order for all products originating in a suspect facility that ICE officials have not been allowed to inspect within 60 days as provided in the Statement of Cooperation. This recommendation parallels a similar recommendation presented to the Commission by ICE officials in August 2007.⁶⁶

Expanded “Private Right of Action” for Private Citizens and Business Interests

Mr. Ellis also called for an expanded “private right of action” for businesspeople to take civil action against competitors whom they suspect of marketing prison labor products or falsifying customs information. As described by Mr. Ellis, under current U.S. customs law, private citizens do not have a private right of action if they suspect competitors are importing prison labor goods or otherwise violating U.S. laws relating to imported products; instead, all such

complaints involving international trade must be made through CBP and adjudicated by the U.S. Court of International Trade.

Mr. Ellis proposes modifying U.S. customs law to allow claims to be made under the False Claims Act (31 U.S.C., articles 3729–3733) if a complainant has grounds to suspect importation activity that violated U.S. law. Notification of the complaint to Customs and Border Protection and Immigration and Customs Enforcement would be required, and the claim would be placed on hold automatically for 60 days so that these agencies would have the opportunity to conduct an initial investigation on the claim. After this 60-day period expires, the complainant would then have the right to pursue civil litigation against his or her competitor, with monetary damages rather than criminal penalties at stake and the case to be decided based upon preponderance of evidence rather than the higher evidentiary standard necessary for criminal conviction.

Mr. Ellis also proposed legislative modifications to the Lanham Act (15 U.S.C., chap. 22) to allow a further private right of action related to the falsification of customs information. Under current law, complainants who accuse a competitor of omitting or falsifying the country of origin on customs declarations have a private right of civil litigation. Mr. Ellis proposed to allow civil litigation if any element of customs information is omitted, such as the point of manufacture of the goods in question, on the grounds that such actions could represent an unfair trade practice.

As discussed by Mr. Marck and Mr. Ellis, these proposals would allow private interests to assist the government in enforcing customs laws related to issues such as prison labor and thereby would free up government resources for higher-priority issues such as drug smuggling, weapons proliferation, and human trafficking. However, in a rebuttal to these proposals, Ms. Wilcheck recommended that the Commission reject Mr. Ellis' recommendations related to expanded private rights of action. She stated that it would set a dangerous precedent to allow private citizens to undertake such actions without substantiation by disinterested government regulatory or law enforcement agencies. She further asserted that such a step would be the "equivalent of granting citizens the right to bring a suit against another private citizen for allegedly speeding or breaking some other law in the penal code. Such a result would be contrary to our very system of justice and would endanger the careful system of checks and balances that protect our liberties."⁶⁷

Conclusions

- The Chinese government has not complied with its commitments under the 1992 Memorandum of Understanding and the supplementary 1994 Statement of Cooperation with the United States related to prison labor exports to the United States. It particularly has failed to comply with the requirement that it grant permission for U.S. authorities to visit suspect prison labor sites within 60 days of receipt of a U.S. request to do so. Consequently, these agreements have been ineffective in enabling the U.S. government to ensure that Chinese prison labor products are not imported into the United States.

- The official PRC position that “reeducation through labor” represents an administrative sanction rather than a form of prison incarceration, and that it therefore is not covered by prison labor agreements, leaves a large portion of the Chinese penal system outside the scope of the prison labor agreements between the U.S. and Chinese governments. The U.S. government does not agree with the Chinese government’s characterization of “reeducation through labor” as distinct from prison incarceration. The Chinese government’s refusal to include “reeducation through labor” facilities in the scope of prison labor agreements eliminates any realistic possibility that the United States reliably can identify sources of goods manufactured with prison labor and prevent their importation into the United States.
- The import of prison labor goods into the United States is illegal. Although it is likely that prison labor products represent only a small fraction of Chinese-manufactured products imported into the United States, the preponderance of evidence suggests that Chinese prison-made goods continue to enter the U.S. market.
- The current failure effectively to enforce U.S. law prohibiting importation of prison labor products has established a perverse set of incentives for U.S. importers and their retail partners in which those willing to purchase prison labor products from Chinese suppliers may achieve and retain with impunity a competitive advantage over competitors who source from legitimate manufacturers.
- U.S. businesses that have cause to believe a competitor may be importing products manufactured with prison or other forced labor, thereby gaining an unfair competitive pricing advantage, currently have no private right of action to pursue civil claims against that competitor.

RECOMMENDATIONS

- The Commission recommends that Congress enact legislation directing U.S. Customs and Border Protection of the U.S. Department of Homeland Security (DHS) to issue detention orders for all products originating in a Chinese prison labor facility when DHS' U.S. Immigration and Customs Enforcement officials have not been permitted to inspect that facility within 60 days of their request to do so.
- The Commission recommends that Congress instruct all relevant government agencies and departments to make greater use of available open source and intelligence resources to gather information about Chinese forced labor facilities and violations so as to offset the dependence on Chinese government information in implementing the Memorandum of Understanding, the Statement of Cooperation, and relevant U.S. laws and regulations.
- The Commission recommends that Congress urge the administration to negotiate an amendment to the Memorandum of Understanding that makes explicit that “reeducation through labor” facilities are included within the scope of U.S.-China agreements related to prison labor.
- The Commission recommends that Congress enact legislation establishing a “private right of action”—i.e., civil litigation—allowing a business to file suit against a competitor suspected of importing prison labor products in violation of U.S. law and/or knowingly falsifying customs information in order to gain an unfair competitive advantage.

ENDNOTES FOR CHAPTER 6

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3. *Renmin Ribao*, May 24, 1951. Cited in Harry Wu, *Laogai: The Chinese Gulag* (Westview Press, Boulder, CO: 1992), p. 34.
4. Harry Wu, *Laogai: The Chinese Gulag* (Westview Press, Boulder, CO: 1992), p. 34.
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59. U.S.-China Economic and Security Review Commission, *Hearing on the Memorandum of Agreement Between the United States and China Regarding Prison Labor Products*, testimony of Daniel Ellis, June 19, 2008.

60. U.S.-China Economic and Security Review Commission, *Hearing on the Memorandum of Agreement Between the United States and China Regarding Prison Labor Products*, testimony of Daniel Ellis, June 19, 2008.

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62. Emily Wilcheck, legal counsel for James Peng, letter to Larry Wortzel, chairman of the U.S.-China Economic and Security Review Commission, July 15, 2008.

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66. Judy Rogers, acting director of ICE's Office of Congressional Relations, letter to Commissioner Jeffrey Fiedler of the U.S.-China Economic and Security Review Commission, August 2, 2007.

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COMPREHENSIVE LIST OF THE COMMISSION'S RECOMMENDATIONS

Chapter 1—The United States-China Trade and Economic Relationship

The U.S.-China Trade and Economic Relationship's Current Status and Significant Changes During 2008

1. The Commission recommends that Congress urge the administration to employ more aggressively all trade remedies authorized by World Trade Organization (WTO) rules to counteract the Chinese government's practices. The Commission further recommends that Congress urge the administration to ensure that U.S. trade remedy laws are preserved and effectively implemented to respond to China's unfair or predatory trade activities so as to advance the interests of U.S. businesses.
2. The Commission recommends that Congress enact legislation that will ensure effective response to China's currency manipulation.
3. The Commission recommends that Congress urge the administration to monitor the implementation and enforcement of China's updated antimonopoly and patent laws to ensure that they are consistent with its WTO commitments and do not discriminate against foreign suppliers. In particular, the Chinese laws should not be used to shield state-owned enterprises from equal enforcement of the laws, in compliance with China's WTO commitments.

China's Capital Investment Vehicles and Implications for the U.S. Economy and National Security

4. The Commission recommends that Congress, within the context of its broader review of financial and corporate regulation, create enforceable disclosure requirements regarding the investments in the United States of all foreign sovereign wealth funds and other foreign state-controlled companies and investment vehicles. Such disclosure requirements, embodied in law or regulation, should include but not be limited to holdings in any public or private company, hedge fund, private equity fund, investment partnership, and/or investment vehicle.
5. The Commission recommends that Congress direct the president to establish an interagency task force made up of the U.S. Department of the Treasury, the U.S. Securities and Exchange Commission, and other appropriate government agencies to identify and address the unique national security and economic challenges created by the lack of transparency and political character of China's sovereign wealth funds and government-controlled companies.

6. The Commission recommends that Congress monitor the implementation and application of the Foreign Investment and National Security Act of 2007 and other appropriate laws and regulations with respect to the possibility of China's sovereign wealth funds acting in concert with other Chinese government-controlled companies and/or investment vehicles in a manner that technically fails to activate the established review process.

Research and Development, Technological Advances in Some Key Industries, and Changing Trade Flows with China

7. The Commission recommends that Congress revive the Office of Technology Assessment, which for 23 years advised Congress on the social, economic, and environmental consequences of technology. The office should be reopened with the mission of advising Congress on technology policy and related issues, with specific attention to Chinese actions that affect U.S. technology interests.
8. The Commission recommends that Congress prevent further cuts in information and statistical analysis by the chief economic departments and agencies of the executive branch and encourage the administration to improve its collection of information about China's impact on globalization.

A Case Study of the Local Impact of Trade with China: Seafood Imports from China into Louisiana and the U.S. Gulf Coast, and Related Safety Issues

9. The Commission recommends that Congress grant the authority to the Food and Drug Administration (FDA) to identify and indelibly mark imports of fish that fail to meet the agency's standards of safety and to seize and destroy shipments of fish that foreign governments report have been contaminated or that subsequently are recalled in that country. The Commission further recommends that Congress pass legislation to institute within the FDA an import inspection and equivalency of standards program for fish similar to the meat and poultry inspection program administered by the U.S. Department of Agriculture.
10. The Commission recommends that Congress authorize the National Oceanic and Atmospheric Administration (NOAA) and the FDA to test imported fish for any contaminants typically found in polluted waters, such as mercury, and to expand funding for research into the potential harm to consumers of fish contaminated with the antibiotics, pesticides, and industrial wastes typically found in unregulated Chinese aquaculture operations.
11. The Commission recommends that Congress revise the Country of Origin Labeling regulations on fish to place the program under the jurisdiction of the FDA rather than the U.S. Department of Agriculture and to remove from the law's provisions loopholes that exempt much of the fish sold in fish markets.
12. The Commission recommends that Congress authorize the expansion of the NOAA's fish inspection and certification pro-

gram. By expanding this voluntary, fee-based system for imported fish, Congress could enable consumers to be better informed, while encouraging American fish importers to follow the highest health and safety practices for their products—at little or no cost to taxpayers. NOAA’s inspection and certification program approximates the U.S. Department of Agriculture’s meat and poultry program.

13. The Commission recommends that Congress pass legislation to enhance the authority of the Customs and Border Protection agency of the U.S. Department of Homeland Security (DHS) to collect penalty tariffs in antidumping cases. Exporters in China have been able to circumvent such duties by transshipping through third countries not covered by antidumping orders, while importers have used a variety of means to escape paying the duties.

Chapter 2—China’s Activities Directly Affecting U.S. Security Interests

China’s Proliferation Policies and Practices

14. The Commission recommends that Congress encourage the administration to seek dialogue on civil nuclear security and to cooperate with China to ensure that its rapid expansion of civil nuclear power does not result in a decline in safety standards or lead to the proliferation of nuclear weapons expertise, technology, or related materials.
15. In order to prevent the proliferation of weapons technology, the Commission recommends that Congress urge the administration to enhance its cooperation with China in strengthening export control and border control programs and in improving the capacity of Chinese officials to implement those programs.

China’s Views of Sovereignty and Methods of Controlling Access to its Territory

16. The Commission recommends that Members of Congress during interparliamentary exchanges with their counterpart members of China’s National People’s Congress reiterate the commitments that China has made as a party to the Outer Space Treaty of 1967 and the United Nations Convention on the Law of the Sea.
17. The Commission recommends that Congress direct the U.S. departments of State and Defense to examine the implications of China’s use of media manipulation and “lawfare” for U.S. foreign policy and military activities.

The Nature and Extent of China’s Space and Cyber Activities and their Implications for U.S. Security

18. The Commission recommends that Congress assess the adequacy of and, if needed, provide additional funding for military, intelligence, and homeland security programs that monitor and protect critical American computer networks and sensitive in-

formation, specifically those tasked with protecting networks from damage caused by cyber attacks.

19. The Commission recommends that Congress urge the administration to engage in consultations with its allies on an alliance-based approach to dealing with cyber attacks originating in China.
20. In order to maintain the security of computer networks used by U.S. government agencies and defense contractors, the Commission recommends that Congress assess the security and integrity of the supply chain for computer equipment employed in those government and contractor networks—particularly those used by the Department of Defense—and, if necessary, provide additional funding to ensure the acquisition of equipment from trustworthy sources.
21. The Commission recommends that Congress urge the administration to engage China in a military dialogue on its actions and programs in cyber and space warfare, including threat reduction mechanisms, transparency initiatives, and international laws of conflict as they apply to the cyber and space domains.

Chapter 3—China’s Energy and Environment Policies and Activities

22. The Commission recommends that Congress encourage the administration to monitor the transboundary environmental impacts of China’s energy consumption and to report on the effects of China’s air pollution on air quality in the United States.
23. The Commission recommends that Congress encourage the administration to seek from China more complete reporting of the economic and environmental effects of China’s energy use and to enhance cooperation with China in collecting information about those effects, especially in collecting data on China’s carbon dioxide emissions.
24. The Commission recommends that Congress urge the administration to implement fully the goals of the 10-year energy and environmental cooperation framework that was signed with China during the fourth meeting of the Strategic Economic Dialogue in June 2008.
25. The Commission recommends that Congress encourage the administration to seek greater opportunities for public-private cooperation in the development and deployment of clean coal technology and carbon capture and sequestration technology in the United States and in China.
26. The Commission recommends that Congress urge the administration to establish a bilateral dialogue with China to discuss strategies to reduce carbon dioxide emissions, especially from coal-fired power plants, and to mitigate the effects of climate change.

27. The Commission recommends that Congress encourage the administration to work with China toward a mutually acceptable multilateral solution for adoption in international climate change negotiations.
28. The Commission recommends that Congress urge the administration to press China to reduce or eliminate in a timely fashion its tariffs on environmental goods and services so as to encourage the import of clean energy and pollution control technologies into China.

Chapter 4—China's Foreign Activities and Relationships

China's Expanding Global Influence and its Foreign Policy Goals and Tools

29. The Commission recommends that Congress support the administration's efforts to pursue a dialogue with China on international aid and investment in the developing world and urge the administration to seek agreement from China on implementing transparent policies and practices for foreign development assistance.
30. The Commission recommends that Congress urge the administration to take additional steps to discourage arms sales by China to countries and regimes of concern and to sanction governments, companies, and individuals that permit the weapons they sold or purchased to be retransferred to state or nonstate actors engaged in military conflicts with U.S. forces or the forces of friends and allies.

China's Relationships and Activities in East Asia

Taiwan

31. The Commission recommends that Congress encourage the administration to continue to work with Taiwan to modernize its armed forces.
32. The Commission recommends that Congress urge the administration to continue to support Taiwan's meaningful participation in international organizations in which de jure statehood is not a prerequisite for participation, and to push energetically for arrangements that permit Taiwan to participate meaningfully in the activities of other international organizations including the specialized agencies of the United Nations, and for the World Health Organization/World Health Assembly to grant Taiwan official observer status.

Japan

33. The Commission recommends that Congress urge the administration to encourage Japan and China to settle their territorial disputes peacefully.
34. The Commission recommends that Congress urge the administration to negotiate an agreement with Japan to share in-

formation about contaminated and unsafe food and products exported from China.

South Korea

35. The Commission recommends that Congress direct the administration to establish a formal dialogue with the government of South Korea regarding technology transfers or losses to China that might affect national security.

Hong Kong

36. The Commission recommends that Members of Congress, when visiting mainland China, also visit Hong Kong and that Congress encourage senior administration officials, including the secretary of State, to make visits to Hong Kong part of their travel to China.
37. The Commission recommends that Congress reenact the United States-Hong Kong Policy Act of 1992, which expired in 2007.
38. The Commission recommends that Congress encourage its Members to seek opportunities for dialogue with members of the Legislative Council in Hong Kong.
39. The Commission recommends that Members of Congress, in their meetings and dialogues with members of China's National People's Congress, raise the importance of the development in Hong Kong of an electoral system with universal suffrage.

Chapter 5—China's Media and Information Controls—The Impact in China and the United States

40. The Commission recommends that Congress carefully examine any agreement involving Internet service providers that addresses pressures from the Chinese government to provide personally identifiable information about Internet users and that Congress periodically review the effectiveness of such agreements.
41. The Commission recommends that Congress investigate the possibility that Chinese government press and Internet censorship violates China's obligations as a member of the World Trade Organization.

Chapter 6—China's Compliance with Agreements Pertaining to its Export to the United States of Prison Labor Products

42. The Commission recommends that Congress enact legislation directing U.S. Customs and Border Protection of the U.S. Department of Homeland Security (DHS) to issue detention orders for all products originating in a Chinese prison labor facility when DHS' U.S. Immigration and Customs Enforcement officials have not been permitted to inspect that facility within 60 days of their request to do so.

43. The Commission recommends that Congress instruct all relevant government agencies and departments to make greater use of available open source and intelligence resources to gather information about Chinese forced labor facilities and violations so as to offset the dependence on Chinese government information in implementing the Memorandum of Understanding, the Statement of Cooperation, and relevant U.S. laws and regulations.
44. The Commission recommends that Congress urge the administration to negotiate an amendment to the Memorandum of Understanding that makes explicit that “reeducation through labor” facilities are included within the scope of U.S.-China agreements related to prison labor.
45. The Commission recommends that Congress enact legislation establishing a “private right of action”—i.e., civil litigation—allowing a business to file suit against a competitor suspected of importing prison labor products in violation of U.S. law and/or knowingly falsifying customs information in order to gain an unfair competitive advantage.

**ADDITIONAL VIEWS OF COMMISSIONER
DANIEL BLUMENTHAL**

During its fact-finding trip to Asia in August 2008, Commissioners learned that the governments of Taiwan and South Korea place enormous importance on signing free trade agreements with the United States. The Commission has not taken a position on this critical issue.

In the case of South Korea, a free trade agreement is pending, the biggest one the United States has negotiated since the North American Free Trade Agreement (NAFTA). The agreement promises billions of dollars of new American exports into South Korea across every sector. In the case of Taiwan, the Bush Administration has failed to negotiate a free trade agreement for one reason alone: fear of angering China.

The United States cannot maintain its leadership position in Asia if it does not ratify free trade agreements that make eminent sense economically and strategically. China is signing countless trade agreements throughout the Asia Pacific. Leading the process of continued trade liberalization is one sure way America can check China's growing regional dominance.

ADDITIONAL VIEWS OF COMMISSIONERS PATRICK A. MULLOY AND PETER VIDENIEKS

We are pleased to sign the Commission's unanimously adopted 2008 Report to the Congress. Members of the Commission, assisted by an able staff, worked in a very collegial and bipartisan manner to elucidate key aspects of the U.S.-China economic relationship and its implications for our nation's national security. It has been a privilege to participate in the effort.

One facet of the relationship which we wish to highlight is China's policy of underpricing its currency both to gain advantages in trade and attract foreign investment. Foreign-invested companies presently account for the majority of China's exports. The Chinese government has offered economic incentives, including an underpriced currency, to encourage foreign company participation in its economy. In its very first Report to Congress issued over six years ago in July 2002, this Commission stated that China's underpriced currency was an important contributing factor to our growing annual trade deficit with that nation, which was then about \$90 billion; it is now three times that amount annually. In addition, the Commission stated that China maintained its underpriced currency by having its central bank make large official purchases of U.S. dollars and noted further that China's very large dollar reserves, accumulated as part of its exchange rate strategy, could in the future, if not stemmed, be used as an "economic weapon" against the United States. The Commission stated that China's policy of "currency manipulation," which contravenes China's International Monetary Fund (IMF) treaty obligations, needed to be addressed.

In each of our Reports issued since 2002, the Commission has pointed to the damage being done particularly to the manufacturing and industrial base of our economy by the strategies of China and other Asian nations that underprice their currencies against the dollar. We noted that our government needed to rectify this problem and that to persuade the Asian nations to take appropriate steps, it was necessary to get China to act first. The U.S. Treasury Department has a statutory charge from Congress in the 1988 Omnibus Trade Law to identify in annual reports to Congress nations that manipulate their currencies to gain trade advantages. Treasury further was charged by Congress to work with any countries so named to stop the IMF illegal practice. The Treasury Department has failed to carry out this Congressional mandate. In September 2005 when the Treasury's under secretary for International Affairs publicly criticized the IMF for failing to police its own charter provisions forbidding currency manipulation by China, the IMF's managing director retorted that the Treasury Department had not named China a currency manipulator in its own reports to the Congress. There was mutual finger-pointing.

While this shameful failure of responsibility by both the Treasury and the IMF has gone on, many more thousands of U.S. manufacturing jobs have been lost, and communities dependent on those jobs were decimated. Our nation's cumulative total bilateral trade deficits with China since 2001 have exceeded \$1 trillion. China is now running a massive global current account surplus of over 10 percent of its gross domestic product. In order to maintain its

underpriced currency in the face of trade surpluses of such a magnitude, the Chinese Central Bank has had to purchase ever larger amounts of foreign exchange, mostly dollars. In 2007, it purchased \$430 billion and this year is projected to purchase \$600 billion.

The Chinese government, in order to get a return on its now massive nearly \$2 trillion of foreign exchange holdings acquired in part from its trade surpluses, has been investing huge sums into U.S. Treasury bonds and debt issued by U.S. government-affiliated agencies, such as Fannie Mae and Freddie Mac. China, in effect, has been lending us the money that enabled us to keep our interest rates low despite our large and growing domestic budget deficits. Many economists note that this surfeit of liquidity into U.S. capital markets encouraged irresponsible lending practices here and thus helped feed the real estate bubble. It also enabled Americans to continue to purchase Chinese imports by tapping into the equity in their once increasingly valuable homes to sustain standards of living they were not earning. The result for China is that it received a new stream of foreign earnings from interest paid on its debt holdings as well as increasing leverage over U.S. interest rates. This latter situation is what the Commission warned about in 2002.

Another offspring of China's increasing dollar holdings made possible, in part, by its exchange rate policy is its increasing investment in the United States by its government-owned sovereign wealth fund and other government-controlled funds and companies. Foreign governments are using the dollars we are paying to finance our trade deficits and other foreign borrowings to buy more of our economy. These matters and their policy implications are discussed in this Report.

To help resolve the current global financial crisis and help reverse some of its most harmful beggar-thy-neighbor mercantilist trade practices, China needs to move toward a growth strategy led not by exports but by domestic consumption. Some of those dollars being pumped by the Chinese government into U.S. Treasury bonds, as part of China's strategy to maintain an underpriced currency, need to be used to grow the standard of living of the Chinese population. This transition has to be effected in a cooperative manner so as not to damage needlessly either our own or China's economy. The United States, in turn, also needs to adopt fiscal, economic, trade, infrastructure, education, and other policies that move us from our growing dependence on foreign money and foreign goods. If we continue to borrow more and more from China to support a standard of living we as a nation are no longer earning, we will hand over more of our independence of action on economic and financial matters to that nation. As Tennessee Williams depicted in his play *A Streetcar Named Desire*, it is not necessarily a wise policy to depend on the kindness of strangers.

ADDITIONAL VIEWS OF COMMISSIONER WILLIAM A. REINSCH

This year's Report represents continued improvement over previous years, despite the Commission's determined effort to make its text as soporific as possible. If one is looking for a cure for insomnia, here it is. Substantively, however, the Report continues its slow march to responsibility. The rhetoric of past years has been reduced, and most—but not all—inflammatory recommendations have been omitted. In short, the Report is maturing, just like the U.S.-China relationship, and I am able to support it this year.

As in previous years, the Commission has continued its impressive record of thorough, balanced hearings with expert witnesses from the government and private sector. That body of work provides an in-depth set of studies on topics important to the bilateral relationship, and the hearing records contain significant amounts of data and other information of use to scholars and policymakers. Some of that is highlighted in this Report, but researchers would be advised to consult the full hearing records.

With respect to trade, the Report correctly notes some disturbing trends and our government's difficulty in dealing with them. China continues to pursue economic policies based primarily on export growth rather than on domestic consumption, leading to a persistent, large bilateral trade surplus and a rapidly growing global surplus. While the renminbi has appreciated significantly, China continues to make its value a function of China's economic policy rather than of market forces, thereby doing China a long-term disservice as well as distorting the global economy. Additionally, new policies on export tax rebates and potential restrictions on inward investment threaten to make the situation worse. While some of the Commission's recommendations are sensible, the Commission unfortunately also continues its enthusiasm for legislative remedies whose arbitrary nature is almost certain to make the remedies ineffective, and the Commission has largely failed to add value to the ongoing debate over exchange rates and trade policy, instead simply throwing back to Congress the same arguments that some of its Members already make.

One topic of increasing Commission focus is China's sovereign wealth fund. This is a complex area of inquiry because there are many hypothetical concerns with respect to which there is little or no present evidence that would justify taking action. On the other hand, waiting until it is too late is not a wise option either. While I have some reservations about the particular approach recommended, the idea of focusing on all sovereign wealth funds and not just China's, and on better transparency, is directionally the right approach.

One area where the Commission's recommendations continue to be thoughtful is with respect to energy and environment, where the Commission has consistently opted for a multilateral, cooperative approach. These areas have also been the focus of some of the Commission's most useful hearings, even though the topics lack the drama of exchange rates or Taiwan policy.

The Report correctly notes progress on China's nonproliferation policy. While there clearly are areas where our foreign policy inter-

ests and China's diverge and where China's conventional arms transfers conflict with our interests, China's proliferation controls—and attitude about WMD—appear to be improving.

Another constructive area of Commission emphasis has been on China's cyber activity. As military systems become more dependent on electronics and information technology, cyber intrusions and the potential for cyber attacks increase, and the damage they can do becomes more serious. While I believe our military is well aware of the problem, it is not clear they have been provided with adequate resources to address it. In addition, the Commission's recommendation that we attempt to deal with this problem multilaterally is a constructive one.

On the vexing issue of information technology (IT) companies attempting to operate in China, the Commission has improved its recommendations over previous years by taking note of the Global Network Initiative, an agreement by companies, human rights organizations, and others on guidelines, implementation commitments, and accountability procedures for dealing with governments' censorship efforts. This is probably the best approach—if it works—and the Commission is wise to acknowledge it, but the Commission's Report still leaves unexamined the question of whether the Chinese people's access to information and the U.S.' national security are better served by a growing U.S. IT presence in China, however limited, or whether the Chinese and we are better off with greater Chinese reliance on indigenous hardware and software. Here, as elsewhere, the morally and politically correct position, which the Commission has always been quick to take, may not be the one most in our or the Chinese people's interests.

In my comments in the last two Reports, I warned that China's becoming a responsible stakeholder does not simply mean that China must agree with us on all important issues. Each subsequent Report has reflected greater understanding of this point and the reality that we do best with China when we can explain to its leaders why a particular action is good for *them* rather than why it is good for us. America's challenge is patience and perspective. Progress will inevitably be as Lenin suggested—two steps forward and one step backward, and sometimes the reverse. The Commission could perform a real service to Congress by making that point from time to time and recommending a degree of patience at the same time that we press China to move more rapidly.

China, in turn, if it wishes to assume a global role commensurate with its size, potential, and aspirations, must understand and be prepared to assume the obligations of leadership, which often requires a degree of self-abnegation. China's leaders have demonstrated that they have a clear understanding of what is in their immediate interest. Their challenge will be to demonstrate they also understand what is in the larger interest of the global system of which they are a part, that the health of that system is inextricably tied with their own, and that they are prepared to act on that understanding.

APPENDIX I

UNITED STATES-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION CHARTER

22 U.S.C. 7002 (2001)

The Commission was created on October 30, 2000, by the Floyd D. Spence National Defense Authorization Act for 2001 § 1238, Pub. L. No. 106-398, 114 STAT. 1654A-334 (2000) (codified at 22 U.S.C. § 7002 (2001), as amended by the Treasury and General Government Appropriations Act for 2002 § 645 (regarding employment status of staff) & § 648 (regarding changing annual report due date from March to June), Pub. L. No. 107-67, 115 STAT. 514 (November 12, 2001); as amended by Division P of the “Consolidated Appropriations Resolution, 2003,” Pub. L. No. 108-7 (February 20, 2003) (regarding Commission name change, terms of Commissioners, and responsibilities of Commission); as amended by Pub. L. No. 109-108 (enacted November 22, 2005) (regarding responsibilities of Commission and applicability of FACA); as amended by Pub. L. No. 110-161 (enacted December 26, 2007) (regarding changing annual report due date from June to December; reporting unobligated balances and submission of quarterly financial reports; deemed Commission a committee of Congress for printing and binding costs; amended employee compensation levels, and performance-based reviews and awards subject to Title 5 USC; and directed that travel by members of the Commission and its staff shall be arranged and conducted under the rules and procedures applying to travel by members of the House of Representatives and its staff).

§ 7002. United States-China Economic and Security Review Commission

(a) Purposes. The purposes of this section are as follows:

(1) To establish the United States-China Economic and Security Review Commission to review the national security implications of trade and economic ties between the United States and the People’s Republic of China.

(2) To facilitate the assumption by the United States-China Economic and Security Review Commission of its duties regarding the review referred to in paragraph (1) by providing for the transfer to that Commission of staff, materials, and infrastructure (including leased premises) of the Trade Deficit Review Commission that are appropriate for the review upon the submittal of the final report of the Trade Deficit Review Commission.

(b) Establishment of United States-China Economic and Security Review Commission.

(1) In general. There is hereby established a commission to be known as the United States-China Economic and Security Review Commission (in this section referred to as the “Commission”).

(2) Purpose. The purpose of the Commission is to monitor, investigate, and report to Congress on the national security implications of the bilateral trade and economic relationship between the United States and the People’s Republic of China.

(3) Membership. The United States-China Economic and Security Review Commission shall be composed of 12 members, who shall be appointed in the same manner provided for the appointment of members of the Trade Deficit Review Commission under section 127(c)(3) of the Trade Deficit Review Commission Act (19 U.S.C. 2213 note), except that—

(A) Appointment of members by the Speaker of the House of Representatives shall be made after consultation with the chairman of the Committee on Armed Services of the House of Representatives, in addition to consultation with the chairman of the Committee on Ways and Means of the House of Representatives provided for under clause (iii) of subparagraph (A) of that section;

(B) Appointment of members by the President pro tempore of the Senate upon the recommendation of the majority leader of the Senate shall be made after consultation with the chairman of the Committee on Armed Services of the Senate, in addition to consultation with the chairman of the Committee on Finance of the Senate provided for under clause (i) of that subparagraph;

(C) Appointment of members by the President pro tempore of the Senate upon the recommendation of the minority leader of the Senate shall be made after consultation with the ranking minority member of the Committee on Armed Services of the Senate, in addition to consultation with the ranking minority member of the Committee on Finance of the Senate provided for under clause (ii) of that subparagraph;

(D) Appointment of members by the minority leader of the House of Representatives shall be made after consultation with the ranking minority member of the Committee on Armed Services of the House of Representatives, in addition to consultation with the ranking minority member of the Committee on Ways and Means of the House of Representatives provided for under clause (iv) of that subparagraph;

(E) Persons appointed to the Commission shall have expertise in national security matters and United States-China relations, in addition to the expertise provided for under subparagraph (B)(i)(I) of that section;

(F) Each appointing authority referred to under subparagraphs (A) through (D) of this paragraph shall—

(i) appoint 3 members to the Commission;

(ii) make the appointments on a staggered term basis, such that—

(I) 1 appointment shall be for a term expiring on December 31, 2003;

(II) 1 appointment shall be for a term expiring on December 31, 2004; and

(III) 1 appointment shall be for a term expiring on December 31, 2005;

(iii) make all subsequent appointments on an approximate 2-year term basis to expire on December 31 of the applicable year; and

(iv) make appointments not later than 30 days after the date on which each new Congress convenes.

(G) Members of the Commission may be reappointed for additional terms of service as members of the Commission; and

(H) Members of the Trade Deficit Review Commission as of the date of the enactment of this Act [enacted Oct. 30, 2000] shall serve as members of the United States-China Economic and Security Review Commission until such time as members are first appointed to the United States-China Economic and Security Review Commission under this paragraph.

(4) Retention of support. The United States-China Economic and Security Review Commission shall retain and make use of such staff, materials, and infrastructure (including leased premises) of the Trade Deficit Review Commission as the United States-China Economic and Security Review Commission determines, in the judgment of the members of the United States-China Economic and Security Review Commission, are required to facilitate the ready commencement of activities of the United States-China Economic and Security Review Commission under subsection (c) or to carry out such activities after the commencement of such activities.

(5) Chairman and vice chairman. The members of the Commission shall select a Chairman and Vice Chairman of the Commission from among the members of the Commission.

(6) Meetings.

(A) Meetings. The Commission shall meet at the call of the Chairman of the Commission.

(B) Quorum. A majority of the members of the Commission shall constitute a quorum for the transaction of business of the Commission.

(7) Voting. Each member of the Commission shall be entitled to one vote, which shall be equal to the vote of every other member of the Commission.

(c) Duties.

(1) Annual report. Not later than June 1 each year [beginning in 2002], the Commission shall submit to Congress a report, in both unclassified and classified form, regarding the national security implications and impact of the bilateral trade and economic relationship between the United States and the People's Republic of China. The report shall include a full analysis, along with conclusions and recommendations for legislative and administrative actions, if any, of the national security implications for the United States of the trade and current balances with the People's Republic of China in goods and services, financial transactions, and technology transfers. The Commission shall also take into account patterns of trade and transfers through third countries to the extent practicable.

(2) Contents of report. Each report under paragraph (1) shall include, at a minimum, a full discussion of the following:

(A) The portion of trade in goods and services with the United States that the People's Republic of China dedicates to military systems or systems of a dual nature that could be used for military purposes.

(B) The acquisition by the People's Republic of China of advanced military or dual-use technologies from the United States by trade (including procurement) and other technology transfers, especially those transfers, if any, that contribute to the proliferation of weapons of mass destruction or their delivery systems, or that undermine international agreements or United States laws with respect to nonproliferation.

(C) Any transfers, other than those identified under subparagraph (B), to the military systems of the People's Republic of China made by United States firms and United States-based multinational corporations.

(D) An analysis of the statements and writing of the People's Republic of China officials and officially-sanctioned writings that bear on the intentions, if any, of the Government of the People's Republic of China regarding the pursuit of military competition with, and leverage over, or cooperation with, the United States and the Asian allies of the United States.

(E) The military actions taken by the Government of the People's Republic of China during the preceding year that bear on the national security of the United States and the regional stability of the Asian allies of the United States.

(F) The effects, if any, on the national security interests of the United States of the use by the People's Republic of China of financial transactions and capital flow and currency manipulations.

(G) Any action taken by the Government of the People's Republic of China in the context of the World Trade Organization that is adverse or favorable to the United States national security interests.

(H) Patterns of trade and investment between the People's Republic of China and its major trading partners, other than the United States, that appear to be substantively different from trade and investment patterns with the United States and whether the differences have any national security implications for the United States.

(I) The extent to which the trade surplus of the People's Republic of China with the United States enhances the military budget of the People's Republic of China.

(J) An overall assessment of the state of the security challenges presented by the People's Republic of China to the United States and whether the security challenges are increasing or decreasing from previous years.

(3) Recommendations of report. Each report under paragraph (1) shall also include recommendations for action by Congress or the President, or both, including specific recommendations for the United States to invoke Article XXI (relating to security exceptions) of the General Agreement on Tariffs and Trade 1994 with respect to the People's Republic of China, as a result of any adverse impact on the national security interests of the United States.

(d) Hearings.

(1) In general. The Commission or, at its direction, any panel or member of the Commission, may for the purpose of carrying out the provisions of this section, hold hearings, sit and act at times and places, take testimony, receive evidence, and administer oaths to the extent that the Commission or any panel or member considers advisable.

(2) Information. The Commission may secure directly from the Department of Defense, the Central Intelligence Agency, and any other Federal department or agency information that the Commission considers necessary to enable the Commission to carry out its duties under this section, except the provision of intelligence information to the Commission shall be made with due regard for the protection from unauthorized disclosure of classified information relating to sensitive intelligence sources and methods or other exceptionally sensitive matters, under procedures approved by the Director of Central Intelligence.

(3) Security. The Office of Senate Security shall—

(A) provide classified storage and meeting and hearing spaces, when necessary, for the Commission; and

(B) assist members and staff of the Commission in obtaining security clearances.

(4) Security clearances. All members of the Commission and appropriate staff shall be sworn and hold appropriate security clearances.

(e) Commission personnel matters.

(1) Compensation of members. Members of the United States-China Economic and Security Review Commission shall be compensated in the same manner provided for the compensation of members of the Trade Deficit Review Commission under section 127(g)(1) and section 127(g)(6) of the Trade Deficit Review Commission Act [19 U.S.C. 2213 note].

(2) Travel expenses. Travel expenses of the United States-China Economic and Security Review Commission shall be allowed in the same manner provided for the allowance of the travel expenses of the Trade Deficit Review Commission under section 127(g)(2) of the Trade Deficit Review Commission Act [19 U.S.C. § 2213 note].

(3) Staff. An executive director and other additional personnel for the United States-China Economic and Security Review Commission shall be appointed, compensated, and terminated in the same manner provided for the appointment, compensation, and termination of the executive director and other personnel of the Trade Deficit Review Commission under section 127(g)(3) and section 127(g)(6) of the Trade Deficit Review Commission Act [19 U.S.C. § 2213 note]. The executive director and any personnel who are employees of the United States-China Economic and Security Review Commission shall be employees under section 2105 of title 5, United States Code, for purposes of chapters 63, 81, 83, 84, 85, 87, 89, and 90 of that title [language of 2001 amendment, Sec. 645].

(4) Detail of government employees. Federal Government employees may be detailed to the United States-China Economic and Security Review Commission in the same manner provided for the detail of Federal Government employees to the Trade Deficit Review Commission under section 127(g)(4) of the Trade Deficit Review Commission Act [19 U.S.C. § 2213 note].

(5) Foreign travel for official purposes. Foreign travel for official purposes by members and staff of the Commission may be authorized by either the Chairman or the Vice Chairman of the Commission.

(6) Procurement of temporary and intermittent services. The Chairman of the United States-China Economic and Security Re-

view Commission may procure temporary and intermittent services for the United States-China Economic and Security Review Commission in the same manner provided for the procurement of temporary and intermittent services for the Trade Deficit Review Commission under section 127(g)(5) of the Trade Deficit Review Commission Act [19 U.S.C. § 2213 note].

(f) Authorization of appropriations.

(1) In general. There is authorized to be appropriated to the Commission for fiscal year 2001, and for each fiscal year thereafter, such sums as may be necessary to enable the Commission to carry out its functions under this section.

(2) Availability. Amounts appropriated to the Commission shall remain available until expended.

(g) Federal Advisory Committee Act. The provisions of the Federal Advisory Committee Act (5 U.S.C. App.) shall not apply to the Commission.

(h) Effective date. This section shall take effect on the first day of the 107th Congress.

Amendments:

SEC. 645. (a) Section 1238(e)(3) of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (as enacted by Public Law 106–398) is amended by adding at the end the following: “The executive director and any personnel who are employees of the United States-China Economic and Security Review Commission shall be employees under section 2105 of title 5, United States Code, for purposes of chapters 63, 81, 83, 84, 85, 87, 89, and 90 of that title.” (b) The amendment made by this section shall take effect on January 3, 2001.”

SEC. 648. DEADLINE FOR SUBMISSION OF ANNUAL REPORTS BY UNITED STATES-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION. Section 1238(c)(1) of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (as enacted into law by section I of Public Law 106–398) is amended by striking “March” and inserting “June”.

Changes: Enacted into law by Division P of the “Consolidated Appropriations Resolution, 2003” Pub. L. No. 108–7 dated February 20, 2003:

H. J. Res. 2—

DIVISION P—UNITED STATES-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION

SECTION 1. SHORT TITLE.—This division may be cited as the “United States-China Economic and Security Review Commission”.

SEC. 2. (a) APPROPRIATIONS.—There are appropriated, out of any funds in the Treasury not otherwise appropriated, \$1,800,000, to remain available until expended, to the United States-China Economic and Security Review Commission.

(b) NAME CHANGE.—

(1) IN GENERAL.—Section 1238 of the Floyd D. Spence National Defense Authorization Act of 2001 (22 U.S.C. 7002) is amended—as follows:

In each Section and Subsection where it appears, the name is changed to the “U.S.-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION”—

(2) REFERENCES.—Any reference in any Federal law, Executive Order, rule, regulation, or delegation of authority, or any document of or relating to the United States-China Security Review Commission shall be deemed to refer to the United States-China Economic and Security Review Commission.

(c) MEMBERSHIP, RESPONSIBILITIES, AND TERMS.—

(1) IN GENERAL.—Section 1238(b)(3) of the Floyd D. Spence National Defense Authorization Act of 2001 (22 U.S.C. 7002) is amended by striking subparagraph (F) and inserting the following:

“(F) each appointing authority referred to under subparagraphs (A) through (D) of this paragraph shall—

“(i) appoint 3 members to the Commission;

“(ii) make the appointments on a staggered term basis, such that—

“(I) 1 appointment shall be for a term expiring on December 31, 2003;

“(II) 1 appointment shall be for a term expiring on December 31, 2004; and

“(III) 1 appointment shall be for a term expiring on December 31, 2005;

“(iii) make all subsequent appointments on an approximate 2-year term basis to expire on December 31 of the applicable year; and

“(iv) make appointments not later than 30 days after the date on which each new Congress convenes;”.

SEC. 635. (a) Modification of Responsibilities.—Notwithstanding any provision of section 1238 of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (22 U.S.C. 7002), or any other provision of law, the United States-China Economic and Security Review Commission established by subsection (b) of that section shall investigate and report exclusively on each of the following areas:

(1) PROLIFERATION PRACTICES.—The role of the People’s Republic of China in the proliferation of weapons of mass destruction and other weapons (including dual use technologies), including actions, the United States might take to encourage the People’s Republic of China to cease such practices.

(2) ECONOMIC TRANSFERS.—The qualitative and quantitative nature of the transfer of United States production activities to the People’s Republic of China, including the relocation of high technology, manufacturing, and research and development facilities, the impact of such transfers on United States national security, the adequacy of United States export control laws, and the effect of such transfers on United States economic security and employment.

(3) ENERGY.—The effect of the large and growing economy of the People’s Republic of China on world energy supplies and the role the United States can play (including joint research and development efforts and technological assistance), in influencing the energy policy of the People’s Republic of China.

(4) UNITED STATES CAPITAL MARKETS.—The extent of access to and use of United States capital markets by the People's Republic of China, including whether or not existing disclosure and transparency rules are adequate to identify People's Republic of China companies engaged in harmful activities.

(5) REGIONAL ECONOMIC AND SECURITY IMPACTS.—The triangular economic and security relationship among the United States, Taipei and the People's Republic of China (including the military modernization and force deployments of the People's Republic of China aimed at Taipei), the national budget of the People's Republic of China, and the fiscal strength of the People's Republic of China in relation to internal instability in the People's Republic of China and the likelihood of the externalization of problems arising from such internal instability.

(6) UNITED STATES-CHINA BILATERAL PROGRAMS.—Science and technology programs, the degree of non-compliance by the People's Republic of China with agreements between the United States and the People's Republic of China on prison labor imports and intellectual property rights, and United States enforcement policies with respect to such agreements.

(7) WORLD TRADE ORGANIZATION COMPLIANCE.—The compliance of the People's Republic of China with its accession agreement to the World Trade Organization (WTO).

(8) FREEDOM OF EXPRESSION.—The implications of restrictions on speech and access to information in the People's Republic of China for its relations with the United States in the areas of economic and security policy.

(b) Applicability of Federal Advisory Committee Act.—Subsection (g) of section 1238 of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 is amended to read as follows:

(g) Applicability of FACA.—The provisions of the Federal Advisory Committee Act (5 U.S.C. App.) shall apply to the activities of the Commission.

The effective date of these amendments shall take effect on the date of enactment of this Act [November 22, 2005].

Changes: Enacted into law by the Consolidated Appropriations Act, 2008, Pub. L. No. 110–161 dated December 26, 2007:

H.R. 2764—

For necessary expenses of the United States-China Economic and Security Review Commission, \$4,000,000, including not more than \$4,000 for the purpose of official representation, to remain available until September 30, 2009: *Provided*, That the Commission shall submit a spending plan to the Committees on Appropriations no later than March 1, 2008, which effectively addresses the recommendations of the Government Accountability Office's audit of the Commission (GAO–07–1128): *Provided further*, That the Commission shall provide to the Committees on Appropriations a quarterly accounting of the cumulative balances of any unobligated funds that were received by the Commission during any previous fiscal year: *Provided further*, That for purposes of costs relating to printing and binding, the Commission shall be deemed, effective on the date of its establishment, to be a committee of Congress: *Provided further*, That compensation for the executive director of the Commission may not exceed the rate payable for level II of the Ex-

ecutive Schedule under section 5314 of title 5, United States Code: *Provided further*, That section 1238(c)(1) of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001, is amended by striking “June” and inserting “December”: *Provided further*, That travel by members of the Commission and its staff shall be arranged and conducted under the rules and procedures applying to travel by members of the House of Representatives and its staff.

COMMISSION FINANCIAL MANAGEMENT

SEC. 118. (a) REQUIREMENT FOR PERFORMANCE REVIEWS.—The United States-China Economic and Security Review Commission shall comply with chapter 43 of title 5, United States Code, regarding the establishment and regular review of employee performance appraisals.

(b) LIMITATION ON CASH AWARDS.—The United States-China Economic and Security Review Commission shall comply with section 4505a of title 5, United States Code, with respect to limitations on payment of performance-based cash awards.

APPENDIX II

BACKGROUND OF COMMISSIONERS

Carolyn Bartholomew, Vice Chairman

Carolyn Bartholomew was reappointed to the Commission by House Speaker Nancy Pelosi on December 19, 2007, for a fourth term expiring December 31, 2009. Ms. Bartholomew previously served as the Commission's Vice Chairman and Chairman for the 2006 and 2007 report cycle, respectively.

Chairman Bartholomew worked at senior levels in the U.S. Congress, serving as Counsel, Legislative Director, and Chief of Staff to U.S. House of Representatives Democratic Leader Nancy Pelosi. She also served as a Professional Staff Member on the House Permanent Select Committee on Intelligence. Previously, she was a legislative assistant to then-U.S. Representative Bill Richardson.

In these positions, Ms. Bartholomew was integrally involved in developing U.S. policies on international affairs and security matters. She has particular expertise in U.S.-China relations, focused primarily on trade, human rights, and the proliferation of weapons of mass destruction. Vice Chairman Bartholomew was a lead staff member on legislation to establish the Department of Homeland Security and led efforts in the establishment and funding of global AIDS programs and the promotion of human rights and democratization in countries around the world. Ms. Bartholomew was a member of the first Presidential Delegation to Africa to Investigate the Impact of HIV/AIDS on Children; and a member of the Council on Foreign Relations Congressional Staff Roundtable on Asian Political and Security issues. In addition to U.S.-China relations, her areas of expertise include terrorism, trade, proliferation of weapons of mass destruction, human rights, U.S. foreign assistance programs, and international environmental issues. She also currently serves on the Board of Directors of the Kaiser Aluminum Corporation.

Vice Chairman Bartholomew received a B.A. from the University of Minnesota, an M.A. in anthropology from Duke University and J.D. from Georgetown University Law Center. She is a member of the State Bar of California.

Daniel A. Blumenthal

Daniel A. Blumenthal was reappointed to the Commission by Senate Republican Leader Mitch McConnell for a second two-year term expiring December 31, 2009. Commissioner Blumenthal served as the Commission's Vice Chairman for the 2007 report cycle.

Daniel Blumenthal is a Resident Fellow in Asian Studies at the American Enterprise Institute for Public Policy Research. He is a

member of the Academic Advisory Group of the Congressional U.S.-China Working Group.

Previously, Mr. Blumenthal was senior director for China, Taiwan, Hong Kong, and Mongolia in the Office of the Under Secretary of Defense for International Security Affairs from March 2004–November 2004 during the first George W. Bush administration. He developed and implemented defense policy toward China, Taiwan, Hong Kong and Mongolia, during which time he received the Office of Secretary of Defense Medal for Exceptional Public Service. From January 2002–March 2004, he was Country Director for China, Taiwan and Hong Kong in the Office of the Secretary of Defense, International Security Affairs.

Before his service at the Department of Defense, Mr. Blumenthal was an Associate Attorney, Corporate and Asia Practice Groups at Kelley Drye & Warren L.L.P. Earlier, he was an Editorial and Research Assistant at the Washington Institute for Near East Policy.

Mr. Blumenthal received an M.A. in International Relations and International Economics from the Johns Hopkins University School of Advanced International Studies, and a J.D. from the Duke University School of Law in 2000. He has written extensively on national security issues.

Peter T.R. Brookes

Commissioner Brookes was reappointed to the Commission by House Minority Leader John Boehner on December 6, 2007, for a second two-year term expiring December 31, 2009.

Peter Brookes develops and communicates the Heritage Foundation's stance on foreign policy and national security affairs through media appearances, research, published articles, congressional testimony, and speaking engagements.

Brookes also serves on the advisory committee of the Commission on the Prevention of Weapons of Mass Destruction, Proliferation and Terrorism.

In addition, he is a weekly columnist for the nation's fifth largest newspaper, the *New York Post*. His column also runs in several other domestic and foreign newspapers and on numerous news and opinion-oriented Web sites. He is also a contributing editor for *Armed Forces Journal* magazine. Brookes has had more than 300 articles published in over 50 newspapers, journals and magazines. He is the author of *A Devil's Triangle: Terrorism, Weapons of Mass Destruction and Rogue States* (Rowman & Littlefield, hardback 2005, paperback 2007).

Brookes has made nearly 1,250 appearances as a commentator on TV and radio, appearing on ABC, NBC, CBS, FOX, CNN, MSNBC, CNBC, NPR, BBC, CBC, VOA, Al Hurra, and Radio Free Asia, among others. He has hosted major market talk radio programs, including XM, and has been quoted by many of the world's largest newspapers and magazines.

He has testified numerous times before both the U.S. Senate and House of Representatives as a public official and as a private citizen. He is also a frequent public speaker around the country and the world, making more than 200 addresses in over 15 countries, including participation in State Department public diplomacy

speaking programs in Japan, Germany, Australia, Poland, Austria, Ukraine, Fiji, and Papua New Guinea.

Before coming to Heritage, Brookes served in the George W. Bush Administration as the deputy assistant secretary of Defense for Asian and Pacific Affairs, where he was responsible for U.S. defense policy for 38 countries and five bilateral defense alliances. Prior to joining the Bush Administration, he worked as a professional staff member with the Committee on International Relations in the U.S. House of Representatives. He also served with the Central Intelligence Agency, State Department, at the United Nations, and in the private sector defense and intelligence industry.

Brookes is a decorated military veteran, having served on active duty with the U.S. Navy in Latin America, Asia, and the Middle East in aviation and intelligence billets. Brookes has logged more than 1300 flight hours aboard U.S. Navy EP-3 reconnaissance aircraft. Now a retired Navy reserve commander, during his reserve career he served with the National Security Agency, Defense Intelligence Agency, Naval Intelligence, the Joint Chiefs of Staff, and the Office of the Vice President, working as an intelligence analyst, strategic debriefer, Russian-language interpreter, defense attaché, policy advisor, and associate professor at the Joint Military Intelligence College.

Brookes is a doctoral candidate at Georgetown University. He is a graduate of the U.S. Naval Academy (B.S., Engineering); the Defense Language Institute (Diploma, Russian); the Naval War College (Diploma); and the Johns Hopkins University (M.A., Government). He has studied German and Polish. He has traveled to more than 50 countries on five continents and has served as an international election observer in Indonesia and Cambodia.

He has served in political positions at the local, state, and national level, including being a drafter of the Republican National Committee's 2000 foreign policy platform at the convention. Brookes served as an advisor to the 2000 and 2004 Bush campaigns on foreign policy and has briefed 2008 presidential candidates.

Brookes' awards include the Navy League of New York's Frank Knox Media Award; the Joint Service Commendation Medal; the Navy Commendation Medal (3 awards); the Navy Achievement Medal; several naval and joint unit awards; the Defense Language Institute's Kellogg Award; the Joint Chiefs of Staff's service badge; and Naval Aviation Observer wings. He was also an All-Navy wrestling champion.

Mark T. Esper, Ph.D.

Mark T. Esper, Ph.D., is Executive Vice President of the Global Intellectual Property Center at the U.S. Chamber of Commerce. Previously he was a Senior Scholar at the National Institute for Public Policy and an Independent Consultant. Until February 2008, Dr. Esper served as the National Policy Director for the Fred Thompson 2008 Presidential Campaign. In this capacity, he was responsible for organizing the candidate's policy teams, engaging senior outside advisors, meeting with issue experts from think tanks and academia, and helping develop the campaign's domestic, eco-

nomic, defense, and foreign policy positions. Dr. Esper also served as the candidate's National Security Advisor.

Before joining the Thompson Campaign, Dr. Esper was Executive Vice President of the Aerospace Industries Association (AIA) of America, the premier trade organization representing the nation's aerospace and defense industry. In addition to his duties as COO, Dr. Esper was also responsible for AIA's defense and international policy offices.

Dr. Esper served a number of years on Capitol Hill. His last assignment was Director of National Security Affairs for Senate Majority Leader Bill Frist (R-TN), where he was responsible for all foreign policy, defense, and intelligence matters. He served earlier in his career as Policy Director for the House Armed Services Committee, and as a senior professional staff member on the Senate Foreign Relations Committee and the Senate Governmental Affairs Committee. In each of these capacities he was responsible for a national security portfolio that included a wide variety of national security, foreign policy, trade, intelligence, and defense issues. From 2002 until 2004 Dr. Esper served as the Deputy Assistant Secretary of Defense for Negotiations Policy at the Pentagon. In this capacity he was responsible for all arms control, nonproliferation, international agreements, UN matters, and related issues for the Defense Department. He led teams of negotiators in Geneva, assisted in delegations to allied capitals, and represented the department on Capitol Hill, in the interagency, and in the media. For his service at the Pentagon he was awarded the Department of Defense Distinguished Public Service Medal. Earlier in his career Dr. Esper served as the Legislative Director and Senior Policy Advisor for Senator Chuck Hagel (R-NE), and was Chief of Staff at The Heritage Foundation, a renowned Washington-based think tank.

Dr. Esper is a retired Army Lieutenant Colonel and Infantry officer who served over a decade on active duty, including a combat tour in Iraq during the 1990–91 Gulf War, and assignments with the 101st Airborne Division and the 82nd Airborne Division. His last active duty assignment was as a strategy and policy analyst, and USPACOM planning officer, at the Pentagon. During his time in uniform, Dr. Esper received a number of awards, including the Legion of Merit, Bronze Star, Meritorious Service Medals, and Combat Infantryman's Badge.

Dr. Esper is a distinguished graduate of the United States Military Academy at West Point, NY. He earned an MPA from the JFK School of Government at Harvard University, and his Ph.D. at the George Washington University in Washington, DC.

Jeffrey L. Fiedler

Jeffrey L. Fiedler was reappointed to the Commission by House Speaker Nancy Pelosi on December 19, 2007, for a second term expiring December 31, 2009. Fiedler is President of Research Associates of America ("RAA"), a non-profit labor research organization. Previously, he was the elected President of the Food and Allied Service Trades Department, AFL-CIO ("FAST"). This constitutional department of the AFL-CIO represented 10 unions with a membership of 3.5 million in the United States and Canada. The

focus of RAA, like FAST before it, is organizing and bargaining research for workers and their unions.

He served as a member of the AFL–CIO Executive Council committees on International Affairs, Immigration, Organizing, and Strategic Approaches. He is also on the Board of Directors of the Consumer Federation of America, and a member of the Council on Foreign Relations, and the Pacific Council on International Policy.

In 1992, Fiedler co-founded the Laogai Research Foundation (“LRF”), an organization devoted to studying the forced labor camp system in China. When the Foundation’s Executive Director, Harry Wu, was detained in China in 1995, Fiedler coordinated the campaign to win his release. He still serves as a director of the LRF.

Fiedler has testified on behalf of the AFL–CIO before the Senate Foreign Relations Committee, the House International Affairs Committee and its various subcommittees, as well as the Trade Subcommittee of the House Ways and Means Committee concerning China policy. He attended three of the American Assembly conferences on China sponsored by Columbia University and has participated in a Council on Foreign Relations task force and study group on China. He has been interviewed on CBS, NBC, ABC, CNN and CNBC on China policy, international trade issues, human rights, and child labor.

A Vietnam veteran, Fiedler served with the U.S. Army in Hue in 1967–68. He received his B.A. in Political Science from Southern Illinois University. He is married with two adult children and resides in Virginia.

Hon. Patrick A. Mulloy

Patrick A. Mulloy was appointed to the Commission on December 12, 2007 by Senate Majority Leader Harry Reid for a term expiring December 31, 2009. Commissioner Mulloy previously served as a member of the Commission from April 2001 to December 31, 2006.

Prior to assuming his current responsibilities, Commissioner Mulloy was nominated by President Clinton and confirmed by the U.S. Senate as Assistant Secretary for Market Access and Compliance in the Department of Commerce’s International Trade Administration, where he served from 1998 to 2001. In that position, Commissioner Mulloy directed a trade policy unit of over two hundred international trade specialists, which focused worldwide on removing foreign barriers to U.S. exports and on ensuring that foreign countries comply with trade agreements negotiated with the United States. This latter activity involved discussions both in the World Trade Organization (WTO) and with individual governments. He traveled extensively, meeting with foreign leaders to advance market-opening programs in the European Union, Eastern Europe, China, India, Taiwan, Indonesia, Canada, and Central and South America. He was also appointed by President Clinton to serve as a member of the Commission on Security and Cooperation in Europe.

Prior to his employment as Assistant Secretary, Commissioner Mulloy served fifteen years in various senior positions on the staff of the U.S. Senate Banking Committee, including Chief International Counsel and General Counsel. In those positions, he contributed to much of the international trade and finance legislation

formulated by the Committee such as the Foreign Bank Supervision Enhancement Act of 1991, the Export Enhancement Act of 1992, the Defense Production Act Amendments of 1994, and titles of the Omnibus Trade and Competitiveness Act of 1988 dealing with foreign bribery, foreign investment, exchange rates, and export controls.

Before coming to the Senate, Commissioner Mulloy served as a senior attorney in the Antitrust Division of the U.S. Department of Justice, where he directed a staff of lawyers and economists, which supervised participation by U.S. oil companies in the Paris-based International Energy Agency (IEA). In earlier duties at the Justice Department, he represented the United States in a variety of cases related to Federal environmental laws, including criminal and civil enforcement actions in various U.S. District Courts, several Circuit Courts of Appeal, and the U.S. Supreme Court.

Commissioner Mulloy began his public service career as a Foreign Service Officer at the U.S. Department of State, where he served in the Office of U.N. Political Affairs, the Office of International Environmental and Oceans Affairs, and as Vice Consul in the U.S. Consulate General in Montreal, Canada.

Commissioner Mulloy, a native of Kingston, Pennsylvania, holds an LL.M. from Harvard University Law School, a J.D. from George Washington University Law School, an M.A. from the University of Notre Dame, and a B.A. from King's College.

Hon. William A. Reinsch

William A. Reinsch was reappointed to the Commission by Senate Majority Leader Harry Reid for a fifth term expiring December 31, 2009.

On April 2, 2001, Commissioner Reinsch joined the National Foreign Trade Council as President. The council, founded in 1914, is the only business organization dedicated solely to trade policy, export finance, international tax, and human resource issues. The organization represents some 300 companies through its offices in New York and Washington, DC.

Prior to joining the National Foreign Trade Council, Commissioner Reinsch served as Under Secretary for Export Administration in the U.S. Department of Commerce. As head of the Bureau of Export Administration (subsequently renamed the Bureau of Industry and Security), he was charged with administering and enforcing the export control policies of the U.S. government, as well as its anti-boycott laws. In addition, the bureau is part of an inter-agency team helping Russia and other newly emerging nations develop effective export control systems and convert their defense industries to civilian production. Through its Office of Strategic Industries and Economic Security, the bureau is also responsible for monitoring and protecting the health of U.S. industries critical to our national security and defense industrial base and assisting in domestic defense conversion efforts. Major accomplishments during his tenure included: refocusing controls in light of economic globalization, most notably on high-performance computers, microprocessors, encryption, and other items; the first complete revision of the Export Administration regulations in over forty years; revis-

ing the interagency process for reviewing applications; and permitting electronic filing of applications over the Internet.

From 1991 through 1993, Commissioner Reinsch was a senior Legislative Assistant to Senator John D. Rockefeller IV, responsible for the senator's work on trade, international economic policy, foreign affairs, and defense. He also provided staff support for Senator Rockefeller's related efforts on the Finance Committee and the Commerce, Science, and Transportation Committee.

From 1977 to 1991, Commissioner Reinsch served on the staff of the late Senator John Heinz as Chief Legislative Assistant, focusing on foreign trade and competitiveness policy issues. During that period, Senator Heinz was either Chairman or ranking minority member of the Banking Committee's Subcommittee on International Finance. He was also a member of the International Trade Subcommittee of the Finance Committee. Commissioner Reinsch provided staff support for the Senator on both subcommittees, which included participation in five revisions of the Export Administration Act and work on four major trade bills. Prior to 1977, Commissioner Reinsch was a Legislative Assistant to Representatives Richard Ottinger and Gilbert Gude, acting Staff Director of the House Environmental Study Conference, and a teacher in Maryland.

During his tenure as Under Secretary, Commissioner Reinsch delivered more than two hundred speeches and testified fifty-three times before various committees of Congress. His publications include "Why China Matters to the Health of the U.S. Economy," in *Economics and National Security: The Case of China*, 2002; "The Role and Effectiveness of U.S. Export Control Policy in the Age of Globalization," *The Monitor* (Center for International Trade and Security: Spring 2000); "Export Controls in the Age of Globalization," *The Monitor* (Center for International Trade and Security: Summer 1999); "Should Uncle Sam Control U.S. Technology Exports?" *Insight Magazine*, September 8, 1997; "Encryption Policy Strikes a Balance," *Journal of Commerce*, March 5, 1997; "Building a New Economic Relationship with Japan," in I.M. Destler and Yankelovich, D., eds., *Beyond the Beltway: Engaging the Public in U.S. Foreign Policy* (W.W. Norton: April 1994).

In addition to his legislative work, Commissioner Reinsch served as an adjunct associate professor at the University of Maryland University College Graduate School of Management and Technology, teaching a course in international trade and trade policy. He is also a member of the Boards of the Middle East Institute and of the Executive Council on Diplomacy.

Commissioner Reinsch received a B.A. degree in International Relations from the Johns Hopkins University and an M.A. degree from the Johns Hopkins School of Advanced International Studies. He is married with two children and lives in Bethesda, Maryland.

Hon. Dennis C. Shea

Commissioner Dennis C. Shea was appointed to the U.S.-China Economic and Security Review Commission on February 17, 2007, by Senate Republican Leader Mitch McConnell for a term expiring on December 31, 2008.

Commissioner Shea is an attorney with more than 20 years of experience in government and public policy. Mr. Shea began his career as a corporate lawyer at Skadden, Arps, Slate, Meagher & Flom. In 1988, he joined the Office of Senate Republican Leader Bob Dole as counsel and later became the office's deputy chief of staff. In these capacities, he advised Senator Dole and other Republican Senators on a broad range of domestic policy issues, was involved in the drafting of numerous pieces of legislation, and was recognized as one of the most influential staffers on Capitol Hill. Mr. Shea's service in the Office of the Senate Republican Leader was interrupted in 1992, when he ran for Congress in New York's 7th Congressional District after receiving the Republican and Conservative Party nominations.

In 1995 and 1996, Mr. Shea continued to help shape the national public policy debate while serving as director of policy for the Dole for President campaign.

Following the 1996 presidential election, Mr. Shea worked in the private sector, providing legislative and public affairs counsel to Fortune 500 companies, major U.S. financial institutions, professional associations, and children's hospitals, while employed at BKSH & Associates and Verner, Liipfert, Bernhard, McPherson and Hand. Mr. Shea also served as a consultant to the American Enterprise Institute and The Brookings Institution on a report that outlined recommendations for reforming the independent counsel statute.

In 2003, Mr. Shea was named the executive director of the President's Commission on the U.S. Postal Service. Many of the commission's recommendations were adopted as part of postal reform legislation recently enacted by Congress and signed into law. In 2004, Mr. Shea was nominated by President George W. Bush and later confirmed as assistant secretary for Policy Development and Research ("PD&R") at the U.S. Department of Housing and Urban Development (HUD). As the head of the PD&R office, Mr. Shea led a team responsible for conducting much of the critical economic analysis necessary to support HUD's mission. In 2005, Mr. Shea left HUD to serve as senior advisor to Senator Elizabeth Dole in her capacity as chair of the National Republican Senatorial Committee.

Mr. Shea received a J.D., an M.A. in American History, and a B.A. in government, all from Harvard University. He is admitted to the bar in New York and the District of Columbia.

Mr. Shea currently resides in Alexandria, Virginia, with his wife Elizabeth and daughter Juliette.

Daniel M. Slane

Daniel M. Slane was appointed to the Commission by House Minority Leader John Boehner on December 10, 2007 for a two year term expiring on December 31, 2009.

Mr. Slane is the founder and co-owner of the Slane Company whose principal businesses include real estate development, lumber, furniture, waste treatment, telecommunications, energy and medical treatment for cancer tumors. Prior to becoming a member of the Commission, Mr. Slane manufactured plywood and related wood products at factories in Harbin, Dalian, Fuzhou and Balu

(Pizhou), China. The Company also has a trading office in Fuzhou, China and employs 136 Chinese staff. (In 2007 he sold his interest in this company). Mr. Slane has extensive international business experience, including operating a business in China.

Mr. Slane served two years on active duty as a U.S. Army Captain in Military Intelligence. He served for a number of years as a Case Officer with the U.S. Central Intelligence Agency. He worked in the White House under President Gerald R. Ford.

Mr. Slane was the former Chairman of the Board of Trustees of the Ohio State University. Ohio State is the nation's largest university with an annual budget of \$4 billion dollars. He is also the former chairman of University Hospital, a 1,000 bed regional hospital in Columbus and the former chairman of the James Cancer Hospital, one of eleven NIC Comprehensive Cancer Centers in the country. He currently serves on the board of two financial institutions and on a number of non-profit boards.

He received a Bachelor of Science Degree in Business Administration and Juris Doctor Degree in Law from The Ohio State University. He holds a Master's Degree in International Law from the Europa Institute at the University of Amsterdam, The Netherlands. Mr. Slane is a member of the Ohio Bar and formerly a partner in the law firm of Grieser, Schafer, Blumenstiel and Slane.

Peter Videnieks

Peter Videnieks was appointed by Senate Majority Leader Harry Reid on January 12, 2007, for a two-year term expiring December 31, 2008.

Prior to his appointment, Commissioner Videnieks served on the staff of Senator Robert C. Byrd (D-WVA), President Pro Tempore of the United States Senate and Chairman of the U.S. Senate Appropriations Committee, as an advisor on international affairs and energy issues. He also served on the staffs of the U.S. Trade Deficit Review Commission and the U.S.-China Economic and Security Review Commission. Mr. Videnieks was previously a contracting officer for NASA, the Justice Department, and the U.S. Customs Service, where he was Division Director. He has also been an IRS revenue officer. He holds degrees from the University of Maryland (B.A. economics) and the George Washington University (M.S.A. with concentration in procurement and contracting). Mr. Videnieks was born in Latvia and lives with his wife Barbara on a farm in Northern Virginia. His language skills are: Latvian, Spanish, and German.

Michael R. Wessel

Michael R. Wessel is an original member of the U.S.-China Economic and Security Review Commission and was re-appointed by House Democratic Leader Nancy Pelosi for a two-year term expiring December 31, 2008.

Commissioner Wessel is President of The Wessel Group Inc., a public affairs consulting firm offering expertise in government, politics, and international affairs. He was formerly the Executive Vice President at the Downey McGrath Group, Inc. He served on the staff of House Democratic Leader Richard A. Gephardt for more

than twenty years, leaving his position as General Counsel in March 1998. In addition to his duties as General Counsel, Commissioner Wessel was Mr. Gephardt's chief policy advisor, strategist, and negotiator. He was responsible for the development, coordination, management, and implementation of the Democratic Leader's overall policy and political objectives, with specific responsibility for international trade, finance, economics, labor, and taxation.

During his more than twenty years on Capitol Hill, Commissioner Wessel served in a number of positions: He was Mr. Gephardt's principal Ways and Means aide, where he developed and implemented numerous tax and trade policy initiatives. He participated in the enactment of every major trade policy initiative from 1978 to his departure in 1998. In the late 1980s, he was the Executive Director of the House Trade and Competitiveness Task Force, where he was responsible for the Democrats' trade and competitiveness agenda as well as overall coordination of the Omnibus Trade and Competitiveness Act of 1988.

He was intimately involved in the development of comprehensive tax reform legislation in the early 1980s and every major tax bill during his tenure. Beginning in 1989, he became the principal advisor to the Democratic Leadership on economic policy matters and served as tax policy coordinator to the 1990 budget summit. In 1995, he developed the 10 percent Tax Plan, a comprehensive tax reform initiative that would enable roughly four out of five taxpayers to pay no more than a ten percent rate in federal income taxes. It became the principal Democratic tax reform alternative. In 1988, he served as National Issues Director to Gephardt's Presidential campaign. During the 1992 Clinton/Gore campaign, he assisted on a broad range of issues and served as a Senior Policy Advisor to the Clinton/Gore transition office. In 2004 he was a senior policy advisor to the Gephardt for President campaign and later co-chaired the Trade Policy Group for the Kerry-Edwards campaign.

He has coauthored a number of articles with Democratic Leader Gephardt and a book, *An Even Better Place: America in the 21st Century* (Public Affairs: 1999). Commissioner Wessel served as a member of the U.S. Trade Deficit Review Commission in 1999–2000, a congressionally created commission charged with studying the nature, causes and consequences of the U.S. merchandise trade and current account deficits. He also currently serves as a member on the Board of Directors of the Goodyear Tire and Rubber Co., one of the world's largest tire companies.

Commissioner Wessel holds a B.A. and a J.D. from George Washington University. He is a member of the bar of the District of Columbia and Pennsylvania and is a member of the Council on Foreign Relations. He and his wife Andrea have four children.

Larry M. Wortzel, Ph.D., Chairman

Larry M. Wortzel was reappointed by House Speaker J. Dennis Hastert on December 8, 2006 for a third term expiring December 31, 2008. Chairman Wortzel was unanimously elected as the Commissioner's Chairman for the 2008 report cycle. He also served as Chairman for the 2006 report cycle.

He previously served as the Director of the Asian Studies Center and Vice President for foreign policy at the Heritage Foundation.

A leading authority on China, Asia, national security, and military strategy, Commissioner Wortzel had a distinguished thirty-two-year career in the U.S. armed forces. His last military position was as director of the Strategic Studies Institute of the U.S. Army War College.

Following three years in the Marine Corps, Commissioner Wortzel enlisted in the U.S. Army in 1970. His first assignment with the Army Security Agency took him to Thailand, where he focused on Chinese military communications in Vietnam and Laos. Within three years, he had graduated Infantry Officer Candidate School, as well as both Airborne and Ranger schools. After serving four years as an infantry officer, he shifted to military intelligence. Wortzel traveled regularly throughout Asia while serving the U.S. Pacific Command as a political-military affairs analyst from 1978 to 1982. The following year he attended the National University of Singapore, where he studied advanced Chinese and traveled in China and Southeast Asia. He next worked for the Under Secretary of Defense for Policy, developing counterintelligence programs to protect emerging defense technologies from foreign espionage. In addition, he managed programs to gather foreign intelligence for the Army Intelligence and Security Command.

From 1988 to 1990, Commissioner Wortzel was Assistant Army Attaché at the U.S. Embassy in China, where he witnessed and reported on the Tiananmen Massacre. After assignments as an Army strategist and managing Army intelligence officers, he returned to China in 1995 as the Army Attaché. In December 1997, he became a faculty member of the U.S. Army War College, serving as director of the Strategic Studies Institute. He retired from the Army as a colonel.

Commissioner Wortzel's books include *Class in China: Stratification in a Classless Society* (Greenwood Press: 1987), *China's Military Modernization: International Implications* (Greenwood: 1988), *The Chinese Armed Forces in the 21st Century* (Carlisle, PA: 1999), and *Dictionary of Contemporary Chinese Military History* (Greenwood: 1999). He regularly publishes articles on Asian security matters.

A graduate of the Armed Forces Staff College and the U.S. Army War College, Commissioner Wortzel earned his B.A. from Columbus College, Georgia, and his M.A. and Ph.D. from the University of Hawaii. He and his wife, Christine, have two married sons and two grandchildren.

APPENDIX III

PUBLIC HEARINGS OF THE COMMISSION

<p>Full transcripts and written testimonies are available online at the Commission's Website: www.uscc.gov.</p>

February 7, 2008: Public Hearing on “The Implications of Sovereign Wealth Fund Investments for National Security,” Washington, DC

Commissioners present: Larry M. Wortzel, Ph.D., Chairman (Hearing Co-Chair); Carolyn Bartholomew, Vice Chairman; Daniel A. Blumenthal; Peter T.R. Brookes; Mark T. Esper, Ph.D.; Jeffrey L. Fiedler; Hon. Patrick A. Mulloy (Hearing Co-Chair); Hon. William A. Reinsch; Hon. Dennis C. Shea; Daniel M. Slane; Peter Videnieks; Michael R. Wessel.

Congressional Perspectives: Hon. Evan Bayh, U.S. Senator from the state of Indiana; Hon. Sherrod Brown, U.S. Senator from the state of Ohio; Hon. Marcy Kaptur, U.S. Congresswoman from the state of Ohio; Hon. James Webb, U.S. Senator from the state of Virginia.

Witnesses: Charles Dallara, Ph.D., The Institute of International Finance; Robert Dohner, Ph.D., U.S. Department of the Treasury; Daniella Markheim, The Heritage Foundation; Michael F. Martin, Ph.D., Congressional Research Service; Peter Morici, Ph.D., University of Maryland; Peter Navarro, Ph.D., University of California, Irvine; Karen Shaw Petrou, Federal Financial Analytics; Brad Setser, Ph.D., Council on Foreign Relations; Linda Chatman Thomsen, Securities and Exchange Commission; Alan Tonelson, U.S. Business and Industry Council Educational Foundation.

February 27, 2008: Public Hearing on “China’s Views of Sovereignty and Methods of Access Control,” Washington, DC

Commissioners present: Larry M. Wortzel, Ph.D., Chairman; Carolyn Bartholomew, Vice Chairman; Peter T.R. Brookes; Mark T. Esper, Ph.D. (Hearing Co-Chair); Jeffrey L. Fiedler (Hearing Co-Chair); Hon. Patrick A. Mulloy; Hon. William A. Reinsch; Hon. Dennis C. Shea; Daniel M. Slane; Peter Videnieks; Michael R. Wessel.

Congressional Perspectives: Hon. Bill Nelson, U.S. Senator from the state of Florida.

Witnesses: Allen R. Carlson, Ph.D., Cornell University; June Teufel Dreyer, Ph.D., University of Miami School of Business Administration; Peter A. Dutton, U.S. Naval War College; Roy D. Kamphausen, National Bureau of Asian Research; James A. Lewis, Ph.D., Center for Strategic and International Studies; Phillip A. Meek, U.S. Air Force; Robert G. Sutter, Ph.D., Georgetown University.

March 18, 2008: Public Hearing on “China’s Expanding Global Influence: Foreign Policy Goals, Practices, and Tools,” Washington, DC¹

Commissioners present: Larry M. Wortzel, Ph.D., Chairman; Carolyn Bartholomew, Vice Chairman (Hearing Co-Chair); Daniel A. Blumenthal (Hearing Co-Chair); Peter T.R. Brookes; Mark T. Esper, Ph.D.; Jeffrey L. Fiedler; Hon. Patrick A. Mulloy; Hon. William A. Reinsch; Hon. Dennis C. Shea; Daniel M. Slane; Peter Videnieks; Michael R. Wessel.

Witnesses: Thomas J. Christensen, Ph.D., Bureau of East Asian and Pacific Affairs; Lisa Curtis, The Heritage Foundation; Mauro De Lorenzo, American Enterprise Institute; Edward Friedman, Ph.D., University of Wisconsin; Lawrence E. Grinter, Ph.D., Air War College, Maxwell Air Force Base; Joshua Kurlantzick, Carnegie Endowment for International Peace; Mohan Malik, Ph.D., Asia-Pacific Center for Security Studies; Philippe Rogers, U.S. Marine Corps; Andrew Scobell, Ph.D., George H. Bush School of Government and Public Services; David S. Sedney, East Asian Security Affairs; Andrew Small, German Marshall Fund of the United States; Cynthia A. Watson, Ph.D., The National War College.

April 24–25, 2008: Public Hearing on “Chinese Seafood: Safety and Trade Issues,” New Orleans, LA

Commissioners present: Carolyn Bartholomew, Vice Chairman (Hearing Co-Chair); Jeffrey L. Fiedler; Hon. Patrick A. Mulloy; Daniel M. Slane (Hearing Co-Chair); Peter Videnieks; Michael R. Wessel.

Congressional Perspectives: Hon. David Vitter, U.S. Senator from the state of Louisiana.

Witnesses: Kim Chauvin, Mariah Jade Shrimp Company; Carole R. Engle, Ph.D., University of Arkansas at Pine Bluff; Matthew Fass, Maritime Projects International; E. Spencer Garrett, National Oceanic and Atmospheric Administration; Jean M. Halloran, Consumer’s Union; Walter R. Keithly, Jr., Ph.D., Louisiana State University; Donald W. Kraemer, U.S. Food and Drug Administration; Stephen Minvielle, Louisiana Crawfish Farmers Association; Harlon H. Pearce, Jr., Louisiana Seafood Promotion and Marketing Board; Schuyler Richard Porche, Louisiana State University; John Williams, Southern Shrimp Alliance; Patrick Woodall, Food & Water Watch.

¹Additional Material Supplied for the Record, Statement by Ellen Frost, National Defense University.

May 20, 2008: Public Hearing on “China’s Proliferation Practices, and the Development of its Cyber and Space Warfare Capabilities,” Washington, DC

Commissioners present: Daniel A. Blumenthal; Peter T.R. Brookes (Hearing Co-Chair); Mark T. Esper, Ph.D.; Jeffrey L. Fiedler; Hon. Patrick A. Mulloy; Hon. William A. Reinsch (Hearing Co-Chair); Hon. Dennis C. Shea; Daniel M. Slane; Peter Videnieks; Michael R. Wessel.

Congressional Perspectives: Hon. Zoe Lofgren, U.S. Congresswoman from the state of California.

Witnesses: Jeffrey C. Horne, United States Strategic Command; Gary D. McAlum, United States Strategic Command; Patricia McNerney, Principal deputy assistant secretary of State for International Security and Nonproliferation; James C. Mulvenon, Ph.D., Center for Intelligence Research and Analysis, Defense Group, Inc.; Hon. Stephen G. Rademaker, BGR Holding, LLC; William B. Scott, Aviation Week & Space; Henry D. Sokolski, The Nonproliferation Policy Education Center; Ashley J. Tellis, Ph.D., Carnegie Endowment for International Peace; Timothy L. Thomas, Foreign Military Studies Office.

June 18, 2008: Public Hearing on “Access to Information and Media Control in the People’s Republic of China,” Washington, DC

Commissioners present: Larry M. Wortzel, Ph.D., Chairman (Hearing Co-Chair); Carolyn Bartholomew, Vice Chairman; Daniel A. Blumenthal; Peter T.R. Brookes; Mark T. Esper, Ph.D.; Jeffrey L. Fiedler (Hearing Co-Chair); Hon. Patrick A. Mulloy; Hon. William A. Reinsch; Hon. Dennis C. Shea; Peter Videnieks.

Witnesses: Ronald J. Deibert, Ph.D., Open Net Initiative; Peter Hayes Gries, Ph.D., University of Oklahoma; Gilbert Kaplan, King & Spalding LLP; Randolph Kluver, Ph.D., Texas A&M University; Perry Link, Ph.D., Princeton University; Lucie Morillon, Reporters Without Borders; Susan Puska, Defense Group, Inc.; Dan Southerland, Radio Free Asia; Xiao Qiang, University of California, Berkeley.

June 19, 2008: Public Hearing on The Memoranda of Understanding between the U.S. and China Regarding Prison Labor Products,” Washington, DC

Commissioners present: Larry M. Wortzel, Ph.D., Chairman (Hearing Co-Chair); Carolyn Bartholomew, Vice Chairman; Daniel A. Blumenthal; Peter T.R. Brookes; Mark T. Esper, Ph.D.; Jeffrey L. Fiedler; Hon. Patrick A. Mulloy; Hon. William A. Reinsch; Hon. Dennis C. Shea; Daniel M. Slane; Peter Videnieks (Hearing Co-Chair); Michael R. Wessel.

Witnesses: Daniel T. Ellis, Lydy & Moan, Ltd.; James Ink, Immigration and Customs Enforcement; Gary G. Marck, G.G. Marck & Associates; Harry Wu, The Laogai Foundation.

July 16, 2008: Public Hearing on “Research and Development, Technological Advances in Key Industries, and Changing Trade Flows with China,” Washington, DC

Commissioners present: Larry M. Wortzel, Ph.D., Chairman; Carolyn Bartholomew, Vice Chairman; Peter T.R. Brookes; Mark T. Esper, Ph.D.; Jeffrey L. Fiedler; Hon. Patrick A. Mulloy; Hon. William A. Reinsch; Hon. Dennis C. Shea (Hearing Co-Chair); Peter Videnieks; Michael R. Wessel (Hearing Co-Chair).

Congressional Perspectives: Hon. Walter Jones, U.S. Representative from the state of North Carolina; Hon. Michael H. Michaud, U.S. Representative from the state of Maine; Hon. Debbie Stabenow, U.S. Senator from the state of Michigan.

Witnesses: Mary Amiti, Ph.D., Federal Reserve Bank of New York; Owen Herrnstadt, International Association of Machinists and Aerospace Workers, AFL–CIO; Kent Hughes, Ph.D., Woodrow Wilson Center; Charles W. McMillion, Ph.D., MBG Information Services; Ernest H. Preeg, Ph.D., The Manufacturers Alliance/MAPI; Tom (Qingjiu) Tao, Ph.D., Lehigh University; Kathleen Walsh, U.S. Naval War College.

August 13, 2008: Public Hearing on “China’s Energy Policies and Their Environmental Impacts,” Washington, DC²

Commissioners present: Larry M. Wortzel, Ph.D., Chairman; Carolyn Bartholomew, Vice Chairman; Mark T. Esper, Ph.D.; Jeffrey L. Fiedler; Hon. Patrick A. Mulloy; Hon. William A. Reinsch (Hearing Co-Chair); Hon. Dennis C. Shea; Daniel M. Slane (Hearing Co-Chair); Peter Videnieks.

Witnesses: Joseph Aldy, Ph.D., Harvard Project on International Climate Agreements and Fellow, Resources for the Future; Edward A. Cunningham, Massachusetts Institute of Technology; Erica Downs, Ph.D., The Brookings Institution; Katharine Fredriksen, U.S. Department of Energy; Scott Fulton, U.S. Environmental Protection Agency; Dan Jaffe, University of Washington-Bothell; Andrew C. Kadak, Massachusetts Institute of Technology; Mark Levine, Ph.D., Lawrence Berkeley National Laboratory; Joanna I. Lewis, Ph.D., Pew Center on Global Climate Change; Stephen Mladineo, Pacific Northwest National Laboratory; Jonathan Schwartz, Ph.D., State University of New York at New Paltz.

² Additional Material Supplied for the Record, Statement by the American Iron and Steel Institute, Steel Manufacturers Association.

APPENDIX IIIA
LIST OF WITNESSES TESTIFYING BEFORE
THE COMMISSION
2008 Hearings

Full transcripts and written testimonies are available online at
the Commission's Website: www.uscc.gov.

Alphabetical Listing of Panelists Testifying before USCC

Panelist Name	Panelist Affiliation	USCC Hearing
Aldy, Joseph	Harvard Project on International Climate Agreements and Fellow, Resources for the Future	August 13, 2008
Amiti, Mary	Federal Reserve Bank of New York	July 16, 2008
Bayh, Evan	U.S. Senator from the state of Indiana	February 7, 2008
Brown, Sherrod	U.S. Senator from the state of Ohio	February 7, 2008
Carlson, Allen R.	Cornell University	February 27, 2008
Chauvin, Kim	Mariah Jade Shrimp Company	April 24–25, 2008
Christensen, Thomas J.	Bureau of East Asian and Pacific Affairs	March 18, 2008
Cunningham, Edward A.	Massachusetts Institute of Technology	August 13, 2008
Curtis, Lisa	The Heritage Foundation	March 18, 2008
Dallara, Charles	The Institute of International Finance	February 7, 2008
De Lorenzo, Mauro	American Enterprise Institute	March 18, 2008
Deibert, Ronald J.	Open Net Initiative	June 18, 2008
Dohner, Robert	U.S. Department of the Treasury	February 7, 2008
Downs, Erica	The Brookings Institution	August 13, 2008
Dreyer, June Teufel	University of Miami School of Business Administration	February 27, 2008

**Alphabetical Listing of Panelists Testifying before USCC—
Continued**

Panelist Name	Panelist Affiliation	USCC Hearing
Dutton, Peter A.	U.S. Naval War College	February 27, 2008
Ellis, Daniel T.	Lydy & Moan, Ltd.	June 19, 2008
Engle, Carole R.	University of Arkansas at Pine Bluff	April 24–25, 2008
Fass, Matthew	Maritime Projects International	April 24–25, 2008
Fredriksen, Katharine	U.S. Department of Energy	August 13, 2008
Friedman, Edward	University of Wisconsin	March 18, 2008
Fulton, Scott	U.S. Environmental Protection Agency	August 13, 2008
Garrett, E. Spencer	National Oceanic and Atmospheric Administration	April 24–25, 2008
Gries, Peter Hayes	University of Oklahoma	June 18, 2008
Grinter, Lawrence E.	Air War College, Maxwell Air Force Base	March 18, 2008
Halloran, Jean M.	Consumer's Union	April 24–25, 2008
Herrnstadt, Owen E.	International Association of Machinists and Aerospace Workers, AFL–CIO	July 16, 2008
Horne, Jeffrey C.	United States Strategic Command	May 20, 2008
Hughes, Kent H.	Woodrow Wilson Center	July 16, 2008
Ink, James	Immigration and Customs Enforcement	June 19, 2008
Jaffe, Dan	University of Washington–Bothell	August 13, 2008
Jones, Walter	U.S. Representative from the state of North Carolina	July 16, 2008
Kadak, Andrew C.	Massachusetts Institute of Technology	August 13, 2008
Kamphausen, Roy D.	National Bureau of Asian Research	February 27, 2008
Kaplan, Gilbert	King & Spalding LLP	June 18, 2008
Kaptur, Marcy	U.S. Congresswoman from the state of Ohio	February 7, 2008
Keithly, Jr., Walter R.	Louisiana State University	April 24–25, 2008
Kluver, Randolph	Texas A&M University	June 18, 2008

**Alphabetical Listing of Panelists Testifying before USCC—
Continued**

Panelist Name	Panelist Affiliation	USCC Hearing
Kraemer, Donald W.	U.S. Food and Drug Administration	April 24–25, 2008
Kurlantzick, Joshua	Carnegie Endowment for International Peace	March 18, 2008
Levine, Mark	Lawrence Berkeley National Laboratory	August 13, 2008
Lewis, James A.	Center for Strategic and International Studies	February 27, 2008
Lewis, Joanna I.	Pew Center on Global Climate Change	August 13, 2008
Link, Perry	Princeton University	June 18, 2008
Lofgren, Zoe	U.S. Congresswoman from the state of California	May 20, 2008
Malik, Mohan	Asia-Pacific Center for Security Studies	March 18, 2008
Marck, Gary G.	G.G. Marck & Associates	June 19, 2008
Markheim, Daniella	The Heritage Foundation	February 7, 2008
Martin, Michael F.	Congressional Research Service	February 7, 2008
McAlum, Gary D.	United States Strategic Command	May 20, 2008
McMillion, Charles W.	MBG Information Services	July 16, 2008
McNerney, Patricia	Principal deputy assistant secretary of State for International Security and Nonproliferation	May 20, 2008
Meek, Phillip A.	U.S. Air Force	February 27, 2008
Michaud, Michael H.	U.S. Representative from the state of Maine	July 16, 2008
Minvielle, Stephen	Louisiana Crawfish Farmers Association	April 24–25, 2008
Mladineo, Stephen	Pacific Northwest National Laboratory	August 13, 2008
Morici, Peter	University of Maryland	February 7, 2008
Morillon, Lucie	Reporters Without Borders	June 18, 2008
Mulvenon, James C.	Center for Intelligence Research and Analysis, Defense Group, Inc.	May 20, 2008
Navarro, Peter	University of California, Irvine	February 7, 2008

**Alphabetical Listing of Panelists Testifying before USCC—
Continued**

Panelist Name	Panelist Affiliation	USCC Hearing
Nelson, Bill	U.S. Senator from the state of Florida	February 27, 2008
Pearce Jr., Harlon H.	Louisiana Seafood Promotion and Marketing Board	April 24–25, 2008
Petrou, Karen Shaw	Federal Financial Analytics	February 7, 2008
Porche, Schuyler Richard	Louisiana State University	April 24–25, 2008
Preeg, Ernest H.	The Manufacturers Alliance/MAPI	July 16, 2008
Puska, Susan	Defense Group, Inc.	June 18, 2008
Rademaker, Stephen G.	BGR Holding, LLC	May 20, 2008
Rogers, Philippe	U.S. Marine Corps	March 18, 2008
Schwartz, Jonathan	State University of New York at New Paltz	August 13, 2008
Scobell, Andrew	George H. Bush School of Gov- ernment and Public Services	March 18, 2008
Scott, William B.	Aviation Week & Space	May 20, 2008
Sedney, David S.	East Asian Security Affairs	March 18, 2008
Setser, Brad	Council on Foreign Relations	February 7, 2008
Small, Andrew	German Marshall Fund of the United States	March 18, 2008
Sokolski, Henry D.	The Nonproliferation Policy Education Center	May 20, 2008
Southerland, Dan	Radio Free Asia	June 18, 2008
Sutter, Robert G.	Georgetown University	February 27, 2008
Stabenow, Debbie	U.S. Senator from the state of Michigan	July 16, 2008
Tao, Tom (Qingjiu)	Lehigh University	July 16, 2008
Tellis, Ashley J.	Carnegie Endowment for International Peace	May 20, 2008
Thomas, Timothy L.	Foreign Military Studies Office	May 20, 2008
Thomsen, Linda Chatman	Securities and Exchange Commission	February 7, 2008
Tonelson, Alan	U.S. Business and Industry Council Educational Foundation	February 7, 2008
Turner, Karl	A La Carte Specialty Foods	April 24–25, 2008

**Alphabetical Listing of Panelists Testifying before USCC—
Continued**

Panelist Name	Panelist Affiliation	USCC Hearing
Vitter, David	U.S. Senator from the state of Louisiana	April 24–25, 2008
Walsh, Kathleen	U.S. Naval War College	July 16, 2008
Watson, Cynthia A.	The National War College	March 18, 2008
Webb, James	U.S. Senator from the state of Virginia	February 7, 2008
Williams, John	Southern Shrimp Alliance	April 24–25, 2008
Woodall, Patrick	Food & Water Watch	April 24–25, 2008
Wu, Harry	The Laogai Foundation	June 19, 2008
Xiao, Qiang	University of California, Berkeley	June 18, 2008

APPENDIX IV
INTERLOCUTORS' ORGANIZATIONS
2008 Asia Fact-finding Trips

CHINA AND HONG KONG, MARCH-APRIL 2008

During the visit of a U.S.-China Commission delegation to China and Hong Kong in March-April 2008, the delegation met with representatives of the following organizations:

In Beijing

U.S. Government

- U.S. Embassy, Beijing

Government of the People's Republic of China

- State Administration for Foreign Exchange
- State Administration for Intellectual Property Rights
- Environmental Protection Organization
- Academy of Military Sciences of the People's Liberation Army
- Chinese People's Institute of Foreign Affairs (CPIFA)

Chinese Enterprises

- China Investment Corporation

Research Organizations

- China Institute of Contemporary International Relations

U.S. Business Interests

- U.S.-China Business Council
- Rockwell Automation

In Taiyuan

Shanxi Provincial Government

- Shanxi Province Development and Reform Commission

Chinese Enterprises

- Taiyuan Steel Company
- Taiyuan Science-Technology Park

In Hong Kong

U.S. Government

- U.S. Consulate, Hong Kong

Government of the Hong Kong Special Administrative Region

- Hong Kong Legislative Council members

Universities

- Chinese University of Hong Kong

Advocacy Organizations

- Civic Exchange

REPUBLIC OF KOREA, JAPAN AND TAIWAN, AUGUST 2008

During the visit of a U.S.-China Commission delegation to Korea, Japan and Taiwan in August 2008, the delegation met with representatives of the following organizations:

In Seoul

U.S. Government

- U.S. Embassy, Seoul
- U.S. Forces Korea

Government of the Republic of Korea

- National Assembly members
- Ministry of Foreign Affairs and Trade, Northeast Asian Affairs Bureau

Universities and Research Organizations

- Korea Institute for Defense Analysis (KIDA)
- Hallym Institute of Advanced International Studies
- Seoul National University, Graduate School of International Studies
- Yonsei University
- Hanyang University
- Korea Research Institute for Strategy
- East Asia Foundation (Global Asia)

In Tokyo

U.S. Government

- U.S. Embassy, Tokyo
- U.S. Army, Asian Studies Detachment

Government of Japan

- Diet members
- Ministry of Foreign Affairs, Asian and Oceanian Affairs Bureau
- Ministry of Foreign Affairs, China and Mongolia Division
- Ministry of Defense, Defense Policy Bureau
- Ministry of Defense, Defense Intelligence Division
- Ministry of Economy, Trade, and Industry

Universities and Research Organizations

- Keio University
- Aoyama Gakuin University, School of International Politics, Economics, and Communication
- The Okazaki Institute

Private Enterprise

- Toshiba Corporation
- Japan-China Economic Association

In Taipei

U.S. Government

- American Institute in Taiwan

Government of Taiwan

- President Ma Ying-jeou
- Ministry of Foreign Affairs

- Ministry of National Defense
- Ministry of Economic Affairs
- National Security Council

Universities

- National Chengchi University, Institute of International Relations
- National Taiwan University

Political Organization

- Democratic Progressive Party

APPENDIX V
LIST OF U.S. SANCTIONS IMPOSED ON CHINESE
ENTITIES FROM JUNE 2004 to OCTOBER 2008

Date Imposed	Entity/Person	Controlling Statute	Date Lifted/ Waived/Expired
September 2004	Beijing Institute of Aerodynamics Beijing Institute of Opto-Electronic Technology (BIOET) China Great Wall Industry Corporation China North Industries Corporation (NORINCO) LIMMT Economic and Trade Company Ltd. Oriental Scientific Instruments Corporation South Industries Science and Technology Trading Co.	Iran Nonproliferation Act: regarding missile and chemical weapons proliferation.	September 2006
September 2004	Xinshidai	Executive Order 12938: regarding the proliferation of weapons of mass destruction.	September 2006
November 2004	Liaoning Jiayi Metals and Minerals Company, Ltd. Q.C. Chen (Chen Qingchang) Wha Cheong Tai Company Ltd. Shanghai Triple International Ltd.	Iran Nonproliferation Act: regarding missile and chemical weapons proliferation.	November 2006
December 2004	Beijing Alite Technologies Company Ltd. China Aero-Technology Import Export Corporation China Great Wall Industry Corporation China North Industries Corporation (NORINCO) Q.C. Chen (Chen Qingchang) Wha Cheong Tai Company Ltd. Zibo Chemet Equipment Co. Ltd.	Iran Nonproliferation Act: regarding missile and chemical weapons proliferation.	December 2006

Source: U.S. Department of State.

Date Imposed	Entity/Person	Controlling Statute	Date Lifted/ Waived/Expired
December 2005	China Aero-Technology Import/Export Corp. (CATIC) North China Industries Corporation (NORINCO) LIMMT Metallurgy and Minerals Company Ltd. Ouinion (Asia) International Economic and Technical Cooperation Ltd. Zibo Chemet Equipment Company	Iran Nonproliferation Act: regarding missile and chemical weapons proliferation.	Expired December 2007
June 2006	Beijing Alite Technologies Company Ltd. (ALCO) LIMMT Economic and Trade Company Ltd. China Great Wall Industry Corporation (CGWIC) China Precision Machinery Import-Export Corp. (CPMIEC) G.W. Aerospace (a U.S. office of CGWIC)	Executive Order 13382: regarding missile proliferation.	Sanctions against China Great Wall Industry Corporation (CGWIC) lifted June 2008; sanctions against other entities remain in effect.
August 2006	Great Wall Airlines Company Ltd. ¹	Executive Order 13382: regarding missile proliferation and dual-use components.	Remain in effect.
December 2006	China National Electronic Import-Export Company China Aero-Technology Import/Export Corp. (CATIC) Zibo Chemet Equipment Company	Iran, Syria, North Korea Non-proliferation Act.	Remain in effect.
April 2007	China National Precision Machinery Import/Export Corporation (CPMIEC) Shanghai Non-Ferrous Metals Pudong Development Trade Company, Ltd. Zibo Chemet Equipment Company	Iran, Syria, North Korea Non-proliferation Act.	Remain in effect.

Date Imposed	Entity/Person	Controlling Statute	Date Lifted/ Waived/Expired
October 2008	China Xinshidai Company China Shipbuilding and Offshore International Corporation, Ltd. Huazhong CNC	Iran, Sria, North Korea Non- proliferation Act.	Remain in effect.

¹“Treasury Sanctions Singaporean-Chinese Cargo Airline Company,” August 26, 2006. www.america.gov/st/washfile-english/2006/August/20060828170426bpuh0.2782251.html.

APPENDIX VI

LIST OF RESEARCH MATERIAL

The material, as noted below, is available online at the Commission's Web site *www.uscc.gov*. All of the commissioned research projects listed below are prepared at the request of the Commission to support its deliberations and are intended to promote greater public understanding of the issues addressed by the Commission. Inclusion in the Report does not imply an endorsement by the Commission or any individual Commissioner of views expressed in the material.

Commissioned Research Paper

- Charles W. McMillion, MBG Information Services, ***Briefing Paper on Technological Advances in Key Industries, and Changing Trade Flows in China***, prepared for the U.S.-China Economic and Security Review Commission, July 16, 2008. *http://www.uscc.gov/researchpapers/2008/08__07__USCC-TradeBriefingPaper.pdf*.

Funded Research Projects, 2008 *

*The research projects listed below were funded in 2008. Upon acceptance by the Commission, the research material will be posted to the Commission's Web site *www.uscc.gov* in fiscal year 2009.

- Capitol Trade, Inc., ***Report Examining Subsidies Provided to Domestic and Foreign Firms by the Chinese Government***.
- Charles W. McMillion, MBG Information Services, ***Report Examining Patterns in U.S.-China Trade Since China's Accession to the World Trade Organization***.
- NSD Biogroup, LLC, ***Report Examining "Sunrise" Sectors of the Science and Technology Sectors of the People's Republic of China***.

APPENDIX VII

ABBREVIATIONS AND ACRONYMS

ACTFU	All-China Federation of Trade Unions
APEC	Asia-Pacific Economic Cooperation (Forum)
ASAT	antisatellite missile
ASEAN	Association of Southeast Asian Nations
BWC	Biological Weapons Convention
C4ISR	command, control, communications, and computer intelligence, surveillance, and reconnaissance
CADFund	China-Africa Development Fund
CATIC	China Aviation Technology Import/Export Corporation
CASS	Chinese Academy of Social Sciences
CBP	Customs and Border Protection
CCP	Chinese Communist Party
CCS	carbon capture and storage
CEO	chief executive officer
CFIUS	Committee on Foreign Investment in the United States
CGWIC	China Great Wall Industries Corporation
Chinalco	Aluminum Corporation of China
CIC	China Investment Corporation
CICC	China International Capital Corporation
CITIC	China International Trust and Investment Corporation
CNA	computer network attack
CND	computer network defense
CNE	computer network exploitation
CNO	computer network operations
CNPC	China National Petroleum Corporation
CPMIEC	China National Precision Machinery Import/Export Corporation
COOL	country of origin label
CSI	Container Security Initiative
CTBT	Comprehensive Test Ban Treaty
CVD	countervailing duty
CWC	Chemical Weapons Convention
DoD	U.S. Department of Defense
DPP	Democratic Progressive Party
DPRK	Democratic Republic of Korea (North Korea)
EEZ	Exclusive Economic Zone
EPA	U.S. Environmental Protection Agency
EU	European Union
EXBS	[U.S. State Department] Export Control and Related Border Security Program
FDA	Food and Drug Administration (U.S.)
FIAC	Foreign Information Administrative Center

FINSA	Foreign Investment and National Security Act of 2007
GAPP	Generally Accepted Principles and Practices
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
GPS	Global Positioning System
ICE	U.S. Immigration and Customs Enforcement
IEA	International Energy Agency
IMF	International Monetary Fund
IPR	intellectual property rights
ITIF	Information Technology and Innovation Foundation
IWG	International Working Group (of the International Monetary Fund)
JCCT	Joint Commission on Commerce and Trade
JETRO	Japan External Trade Organization
JV	joint venture
KMT	Kuomintang Party
LNG	liquefied natural gas
LY	Legislative Yuan
MCTR	Missile Technology Control Regime
METI	Ministry of Economics, Trade, and Industry (Japan)
MOFA	Ministry of Foreign Affairs (Japan)
MOJ	Ministry of Justice (China)
MOU	Memorandum of Understanding
NASA	National Aeronautics and Space Administration
NEA	National Energy Administration
NGO	nongovernmental organization
NIPRNet	Nonsecure Internet Protocol Router Network
NOAA	National Oceanic and Atmospheric Administration
NORINCO	China North Industries Corporation
NPT	Nuclear Nonproliferation Treaty
NSG	Nuclear Suppliers Group
OECD	Organization for Economic Cooperation and Development
OIA	Office of International Affairs
OTA	Office of Technology Assessment
PAROS	Prevention of an Arms Race in Outer Space
PLA	People's Liberation Army (China)
PRC	People's Republic of China
PSI	Proliferation Security Initiative
R&D	research and development
RMB	renminbi
ROC	Republic of China (Taiwan)
ROK	Republic of Korea (South Korea)
SAFE	State Administration of Foreign Exchange
SARS	severe acute respiratory syndrome
SEC	Securities and Exchange Commission (U.S.)
SED	Strategic Economic Dialogue
SEPA	State Environmental Protection Agency (China)
SIGINT	signals intelligence
SIPRNet	Secret Internet Protocol Router Network
SOE	state-owned enterprise
TRA	Taiwan Relations Act
UN	United Nations

UNGA	UN General Assembly
UN PKO	UN peacekeeping operation
USD	U.S. dollar
USDA	U.S. Department of Agriculture
USITC	U.S. International Trade Commission
USTR	U.S. Trade Representative
VAT	value-added tax
WHA	World Health Assembly
WMD	weapons of mass destruction
WME	weapons of mass effect
WTO	World Trade Organization

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